

**Fishery Data Series No. 14-57**

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# **Salmon Age and Sex Composition and Mean Lengths for the Yukon River Area, 2011**

by

**Kyle J. Schumann**

December 2014

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Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



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Weights and measures (metric)		General		Mathematics, statistics	
centimeter	cm	Alaska Administrative Code	AAC	all standard mathematical signs, symbols and abbreviations	
deciliter	dL	all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.	alternate hypothesis	H <sub>A</sub>
gram	g	all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.	base of natural logarithm	e
hectare	ha			catch per unit effort	CPUE
kilogram	kg	at	@	coefficient of variation	CV
kilometer	km			common test statistics	(F, t, $\chi^2$ , etc.)
liter	L	compass directions:		confidence interval	CI
meter	m	east	E	correlation coefficient (multiple)	R
milliliter	mL	north	N	correlation coefficient (simple)	r
millimeter	mm	south	S	covariance	cov
<b>Weights and measures (English)</b>		west	W	degree (angular )	°
cubic feet per second	ft <sup>3</sup> /s	copyright	©	degrees of freedom	df
foot	ft	corporate suffixes:		expected value	E
gallon	gal	Company	Co.	greater than	>
inch	in	Corporation	Corp.	greater than or equal to	≥
mile	mi	Incorporated	Inc.	harvest per unit effort	HPUE
nautical mile	nmi	Limited	Ltd.	less than	<
ounce	oz	District of Columbia	D.C.	less than or equal to	≤
pound	lb	et alii (and others)	et al.	logarithm (natural)	ln
quart	qt	et cetera (and so forth)	etc.	logarithm (base 10)	log
yard	yd	exempli gratia		logarithm (specify base)	log <sub>2</sub> , etc.
<b>Time and temperature</b>		(for example)	e.g.	minute (angular)	'
day	d	Federal Information Code	FIC	not significant	NS
degrees Celsius	°C	id est (that is)	i.e.	null hypothesis	H <sub>0</sub>
degrees Fahrenheit	°F	latitude or longitude	lat or long	percent	%
degrees kelvin	K	monetary symbols		probability	P
hour	h	(U.S.)	\$, ¢	probability of a type I error	
minute	min	months (tables and figures): first three		(rejection of the null hypothesis when true)	α
second	s	letters	Jan.,...,Dec	probability of a type II error	
<b>Physics and chemistry</b>		registered trademark	®	(acceptance of the null hypothesis when false)	β
all atomic symbols		trademark	™	second (angular)	"
alternating current	AC	United States		standard deviation	SD
ampere	A	(adjective)	U.S.	standard error	SE
calorie	cal	United States of America (noun)	USA	variance	
direct current	DC	U.S.C.	United States Code	population sample	Var var
hertz	Hz	U.S. state	use two-letter abbreviations (e.g., AK, WA)		
horsepower	hp				
hydrogen ion activity (negative log of)	pH				
parts per million	ppm				
parts per thousand	ppt, ‰				
volts	V				
watts	W				

***FISHERY DATA SERIES NO. 14-57***

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THE YUKON RIVER AREA, 2011**

by

Kyle J. Schumann

Alaska Department of Fish and Game, Division of Commercial Fisheries, Anchorage

Alaska Department of Fish and Game  
Division of Sport Fish, Research and Technical Services  
333 Raspberry Road, Anchorage, Alaska, 99518-1565

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*Kyle J. Schumann,  
Alaska Department of Fish and Game, Division of Commercial Fisheries  
333 Raspberry Rd., Anchorage, AK 99518, USA*

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## ABSTRACT

Biological data were collected from Chinook (*Oncorhynchus tshawytscha*), summer chum (*O. keta*), fall chum (*O. keta*), and coho (*O. kisutch*) salmon at 34 locations along the United States portion of the Yukon River drainage in 2011. Age, sex, and length (ASL) data were obtained from 10,051 Chinook, 6,828 summer chum, 4,402 fall chum, and 1,239 coho salmon from commercial and subsistence harvests, as well as test fisheries, escapement, and tagging projects. Samples were collected from salmon caught with gillnets, fish wheels, beach seines, weir traps, rod and reel, and from carcasses. Where available, escapement estimates from sonar and weir projects were separated into temporal segments (strata) and commercial harvests were separated by fishing periods. The ASL data collected during the corresponding stratum or period was applied to the corresponding escapement estimate or commercial harvest. At most test fishery projects data were stratified by quartiles based on catch per unit effort (CPUE) or sample sizes.

In 2011, age-1.2 Chinook salmon predominated incidental harvest of summer chum salmon commercial fishery samples; age-1.3 Chinook salmon predominated most of the subsistence, and escapement samples, and age-1.4 Chinook salmon predominated most of the test fishery samples. At many long standing projects 5-year-old (age-1.3 and age-2.2) Chinook salmon percentages were at or above the 5-year average, while the 6-year-old (age-1.4 and age-2.3) Chinook salmon percentages were below the 5-year average. Summer chum salmon commercial, test fishery, and escapement samples were primarily composed of age-0.3 and age-0.4 fish. Fall chum salmon commercial and test fishery samples were primarily composed of age-0.3 fish. Age-2.1 coho salmon predominated in commercial and test fishery samples.

Key words: Pacific salmon *Oncorhynchus* spp., Chinook *Oncorhynchus tshawytscha*, summer and fall chum *O. keta*, coho *O. kisutch*, age, sex, length (ASL), escapement, weir, test fish, subsistence, commercial, Yukon River.

## INTRODUCTION

The Yukon River drainage encompasses coastal waters from Canal Point light, near Cape Stephens, southward to the Naskonat Peninsula (Bue et al. 2011), and upstream to the headwaters near Whitehorse, Canada (Figure 1). The drainage supports major runs of Chinook (*Oncorhynchus tshawytscha*), summer chum and fall chum (*O. keta*), and coho (*O. kisutch*) salmon. All 3 of these salmon species are harvested in commercial, subsistence, personal use, test, and sport fisheries in Alaska. Harvests also occur in the Canadian portion of the drainage by commercial, subsistence, aboriginal, sport, and domestic fishermen (JTC 2011). Pink (*O. gorbuscha*) and sockeye (*O. nerka*) salmon are indigenous to the drainage; however, neither species are harvested by fishermen to any significant extent.

Adult Chinook and summer chum salmon runs typically enter the mouth of the Yukon River during late May or early June to begin their upstream migration. These runs are followed by fall chum salmon, which enter the Yukon River from mid-July through early September. Summer chum salmon are genetically distinct from fall chum salmon and can be distinguished from their fall counterparts by their smaller size, lower oil content, and different spawning locations. Summer chum salmon spawn in the lower and middle portion of the drainage, whereas fall chum salmon spawn in the upper portion of the drainage (Crane et al. 2001; Bue et al. 2011). Coho salmon enter the Yukon River from late July through September.

For management purposes, the Alaska portion of the drainage is divided into 7 districts and 10 subdistricts (Figure 2). The Lower Yukon area consists of the Coastal District and Districts 1, 2, and 3. The Upper Yukon area consists of Districts 4, 5, and 6.

In order to characterize annual spawning runs of each species, by specific location and for the drainage as a whole, by age, sex, and size, sampling must be conducted to adequately represent fisheries (subsistence and commercial) and escapement. Age composition estimates are

necessary to estimate the total returns of salmon from each parent brood year; this information is used for inseason management, preseason outlooks, run reconstructions, and analysis of escapement goals.

Yukon River drainage salmon age, sex, and length (ASL) data have been collected since 1960. Data were historically recorded using handwritten forms, then on computerized mark-sense forms, and most recently, with electronic data loggers. Annual ASL data summaries have been reported in various formats. From 1962 through 1968 these data were reported in Annual Management Reports or Arctic Anadromous Fishery Investigation Reports. From 1969 through 1981 data were reported in *Salmon Age, Sex, and Size Composition*, an Alaska Department of Fish and Game (ADF&G) special report series. From 1982 through 1988 data were published in the Technical Fisheries Report series (e.g., Buklis 1987). For the years 1989, 1992, and 1994 1990, 1991, 1993, and 1995–2003, data were published in the Regional Information Report series (e.g., Menard 1996). In 2004, ADF&G Division of Commercial Fisheries (CF) began using the Fishery Data Series to report annual Yukon River ASL data (e.g., Horne-Brine et al. 2009). Individual salmon ASL data records collected in the Yukon River area are available from the Arctic, Yukon, and Kuskokwim (AYK) Salmon Database Management System<sup>1</sup>.

The purpose of this report is to provide a summary of the 2011 Yukon River drainage salmon ASL data collected from various commercial and subsistence harvests, test fisheries, and escapement and tagging projects (Table 1). ASL data and summaries provide the basis for a variety of analyses including preseason run outlooks, assessment of females and older-aged fish in escapements, and spawner-recruit models.

## **BACKGROUND**

### **COMMERCIAL FISHERIES**

Commercial fishing occurs throughout the Yukon River mainstem and in the lower 224 river miles (rm) of the Tanana River. In 2011, the majority of the commercially caught Chinook and summer chum salmon were harvested from Districts 1 and 2, with smaller harvests occurring in other districts. Fall chum and coho salmon are typically harvested in Districts 1, 2, 5, and 6. Samples were typically collected from districts with large harvests that were most accessible for sampling crews: Districts 1 and 2 from the Emmonak-based crew and Districts 5 and 6 from the Fairbanks-based crew. During some years, a crew was based in Galena that sampled both commercial and subsistence harvests.

Set and drift gillnets are the only legal commercial and subsistence fishing gear in the Lower Yukon area (Districts 1, 2, and 3; Figure 2; ADF&G 2010–2013). Historically, set gillnets and fish wheels were the only legal gear in the Upper Yukon area (Districts 4, 5, and 6; Figure 2), except for District 4 where drift gillnets are allowed (ADF&G 2010–2013).

Chinook and summer chum salmon are harvested during the summer season (ending July 15 in District 1 and progressing chronologically upriver). In 2011, summer chum salmon commercial fishing occurred from June 24 through July 14 in District 1, June 26 through July 17 in District 2, and July 18 through August 12 in District 6 (Hayes et al. 2011). The sale of incidentally harvested Chinook salmon was not allowed. Historically, large mesh gear was used early in the season to harvest Chinook salmon and smaller mesh gear was used as the season progressed to

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<sup>1</sup> <http://www.adfg.alaska.gov/CommFishR3/WebSite/AYKDBMSWebsite/Default.aspx>

harvest the later running chum salmon. In Districts 1 and 2, gillnets were restricted to 6 in or smaller mesh sizes and in District 6 all harvest was from fish wheels. Summer chum salmon and incidentally harvested Chinook salmon were sampled during selected periods in these districts.

Fall chum and coho salmon are harvested during the fall season (starting July 16 in District 1 and progressing chronologically upriver). In 2011, commercial fishing occurred in District 1 from July 18 through September 9, District 2 from August 1 through August 23, and Subdistricts 5-B and 5-C from August 5 through August 16 (Estensen and Borba 2011). Fall chum and coho salmon were sampled from selected periods in these harvests.

## **SUBSISTENCE FISHERIES**

Subsistence fishing occurs throughout the Yukon River drainage, with most of the effort concentrated in the mainstem. Chinook, summer chum, fall chum, and coho salmon are the principal species utilized by subsistence fishermen. Set and drift gillnets are the primary gear used to harvest subsistence salmon in Districts 1, 2, and 3; a mixture of gillnets and fish wheels are used in Districts 4, 5, and 6 (Jallen and Hamazaki 2011). Beginning in 2011, fishermen in the Coastal District and Districts 1–6 were restricted to using gillnets with a mesh size no larger than 7.5 in (ADF&G 2010–2013). Chinook salmon are the main species sampled for ASL data. Because of low Chinook salmon abundance, sampling was not directed by specific gear types or mesh sizes; instead, any fish available were sampled.

Since 2001, the summer season subsistence salmon fishery has been on a regulatory windowed schedule consistent with Chinook salmon migratory timing as the run progresses upstream (JTC 2011). To further protect Chinook salmon in 2011, some subsistence periods were cancelled, some periods were reduced, and starting in late June, mesh size was restricted to 6.0 in or less (Hayes et al. 2011). For fall chum salmon, beginning July 16 in District 1, subsistence fishing was open 7 days a week, 24 hours a day. Fall chum salmon subsistence harvests typically are not sampled in the drainage; however, samples were collected from a fish wheel in Tanana in 2011.

## **TEST FISHERIES**

Test fishery projects provide assessments of run strength, timing, and ASL composition. Test fishery projects in 2011 operated in marine waters and in the Yukon River mainstem. Data from these test fisheries are included in the ASL sampling program to supplement the information on inseason run strength and timing indices.

### **Dall Point Test Fishery**

In 2011, in cooperation with the Yukon Delta Fisheries Development Association (YDFDA), a drift gillnet test fishery operated offshore of Dall Point, in the vicinity of Hooper Bay (Figure 2). The purpose of this project was to evaluate the feasibility of estimating run timing and relative abundance of salmon before they enter the Yukon River. Test fishing was conducted during the summer season using gillnets with 8.25 in mesh for Chinook salmon, and 5.5 in mesh for summer chum salmon.

### **Lower Yukon Test Fishery**

Test fisheries at the Big Eddy and Middle Mouth sites, located in District 1 near river mile 24, are referred to as the Lower Yukon test fishery (LYTF). Since 1979, the LYTF has utilized set and drift gillnets to estimate run timing and relative abundance of Chinook, summer chum, fall chum,

and coho salmon returning to the Yukon River. The Big Eddy test fishery site is located on Kwikluak Pass (South Mouth) near the village of Emmonak (Figure 1). The Middle Mouth test fishery site is located on Kwikpak Pass, upstream of Kawanak Pass (Middle Mouth) and Apoon Pass (North Mouth, Figure 1; Horne-Brine and Bue 2008).

During the summer season, 8.5 in mesh set gillnets and 8.25 in mesh drift gillnets are used to target Chinook salmon, and 5.5 in mesh drift gillnets were used to target summer chum salmon (Newland and Hayes 2008). During the fall season (July 16–August 31), 6.0 in mesh drift gillnets are used to target fall chum and coho salmon (Horne-Brine and Bue 2008).

LYTF is the longest-standing test fishery project in the Yukon River drainage. ASL data has been collected at 1 or both of the LYTF locations from Chinook (most years since 1974), summer and fall chum (since 1979), and coho salmon (most years since 1981).

### **Mountain Village Test Fishery**

The Mountain Village drift gillnet test fishery has operated during the fall season in District 2 since 1995 in cooperation with Asa'carsarmiut Traditional Council, and for the first time during the summer season in 2010 with assistance from YDFDA. The objectives are to estimate the relative abundance and migratory timing of Chinook, fall chum, and coho salmon in the Yukon River near Mountain Village (rm 87, Figure 1). The Mountain Village test fishery operated from mid-June to mid-July for the summer season using 7.5 in mesh drift gillnets to target Chinook salmon, and mid-July to mid-September for the fall season using 5- $\frac{7}{8}$  in mesh drift gillnets to target fall chum and coho salmon. ASL data has been collected from fall chum and coho salmon harvested in the Mountain Village test fishery since 2001.

### **Pilot Station Sonar**

Located in District 2 (rm 123, Figure 1), Pilot Station sonar uses hydroacoustic equipment to generate daily Chinook, summer chum, fall chum, and coho salmon abundance estimates. Pilot Station sonar has been in operation since 1986, and multiple styles of equipment have been used to estimate fish passage. The Pilot Station sonar project currently uses a combination of fixed-location split-beam sonar and dual frequency identification sonar (DIDSON<sup>2</sup>).

Test fishing is conducted to apportion the passage estimates by species; a suite of gillnets of various mesh sizes are drifted through the sonar site (Carroll and McIntosh 2011). Sonar equipment and fishing gear are operated at regular intervals within a 24 hour period. Typically, Chinook salmon are sampled for ASL from early June to mid-July. Chinook salmon biological data were collected in 2011, and has been annually since 1998. ASL data were collected from both summer and fall chum salmon for 4 years from 1986 to 1994, and coho salmon in 1994.

### **Eagle Sonar**

Located in District 5, the Eagle sonar project (rm 1,206, Figure 1) estimates run timing and passage estimates for Chinook and fall chum salmon. To apportion the passage estimates by species, a test fishery is conducted in which a suite of gillnets of various mesh sizes are drifted through the sonar site (Crane and Dunbar 2011). Chinook salmon are sampled from the test fishery catches from early July to mid-August and fall chum salmon are sampled from

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<sup>2</sup> All product names used in this report are included for scientific completeness, and do not constitute a product endorsement.

mid-August to early October. Chinook salmon ASL data have been collected since 2005 and from fall chum salmon since 2006.

## **ESCAPEMENT PROJECTS**

Annual assessments of spawning escapements are monitored in the Yukon River tributaries by means of weirs, counting towers, sonar projects, and carcass and aerial surveys (Bue et al. 2011). The ground based weir, tower, and sonar projects typically include an ASL sampling program, whereby samples are collected by capturing salmon with a trap built into a weir, fishing a beach seine, or hand-picking carcasses on the spawning grounds. Samples and data are collected from Chinook and chum salmon in 4 long-standing escapement projects, located on the East Fork Andreafsky, Anvik, Chena, and Salcha rivers. Additional ASL sampling is conducted on the Gisasa River and Henshaw Creek, both tributaries of the Koyukuk River.

### **East Fork Andreafsky River Weir**

The Andreafsky River joins the Yukon River near the village of Saint Mary's (rm 104, Figure 1). A weir has operated to estimate Chinook and summer chum salmon escapements in the East Fork Andreafsky River since 1994 (Maschmann 2009). The weir typically operates from mid-June to late July; from 1995 through 2005, the season was extended into September to monitor coho salmon. ASL data have been collected from Chinook salmon since 1980, summer chum salmon since 1981, and coho salmon from 1995 to 2005. Collection methods have been from hand-picked carcasses, beach seine, and a weir trap.

### **Anvik River Sonar**

The Anvik River flows for 124 river miles before joining the Yukon River near the community of Anvik (rm 318, Figure 1). Summer chum salmon escapement to the Anvik River has been monitored since 1979 using sonar (McEwen 2011). The sonar typically operates from late June to late July. ASL data were collected from Chinook salmon in 2011 from hand-picked carcasses, as they have been in most years since 1967. ASL data were collected from summer chum salmon from 1972 to 1982 from hand-picked carcasses and from 1984 to 2011 by beach seine.

### **Chena River Tower**

The Chena River (rm 920) is a tributary of the Tanana River, located 225 rm upriver from the confluence of the Tanana and Yukon rivers (Figure 1). A counting tower has operated to estimate Chinook and summer chum salmon escapements in the Chena River since 1993. ASL data from Chinook salmon has been collected since 1980, from hand-picked carcasses or by electrofishing (1987–1992), with sampled fish used for a mark–recapture population estimate.

### **Gisasa River Weir**

The Gisasa River flows into the Koyukuk River 56 rm upstream from the confluence of the Koyukuk and Yukon rivers (rm 508, Figure 1). A resistance board weir has operated on the Gisasa River since 1994 to estimate Chinook and summer chum salmon escapements and run timing. The weir typically operates from late June through late July and is located 2.5 rm upriver from the confluence with the Koyukuk River (Melegari 2010). A limited number of Chinook and summer chum salmon were sampled from 1982 to 1988 from hand-picked carcasses. Since 1995, both Chinook and summer chum salmon have been captured for sampling using a weir trap.

## **Henshaw Creek Weir**

Henshaw Creek is located in the upper Koyukuk River drainage 468 m from the confluence of the Koyukuk and Yukon rivers (Figure 1). A resistance board weir, located about 1 mile up from the confluence with the Koyukuk River, has operated on Henshaw Creek since 2000. The weir typically operates from late June to early August and provides escapement and run timing estimates for Chinook and summer chum salmon. ASL data have been collected since 2000 from both Chinook and summer chum salmon using a weir trap.

## **Salcha River Tower**

The Salcha River (rm 965) is a tributary of the Tanana River, located 270 m upriver from the confluence of the Tanana and Yukon rivers (Figure 1). Salcha River Chinook and summer chum salmon escapements have been monitored by a counting tower located near the Richardson Highway Bridge since 1993 (Brase and Doxey 2006). Counting is conducted from late June to early September. ASL data from Chinook salmon has been collected for most years since 1966 from hand-picked carcasses and, during 6 years, by electrofishing. A limited number of summer chum salmon were sampled from 15 years between 1972 and 2011, primarily from hand-picked carcasses.

## **ACOUSTIC TAGGING**

The purpose of this project was to determine the physical distribution of adult salmon as they migrate in the Yukon River past the sonar project at Pilot Station. The objectives of this project were to acoustically tag 150 Chinook salmon and 150 summer chum salmon during each of 2 operational seasons beginning in 2011. Chinook and summer chum salmon were caught using a suite of gillnets of various mesh sizes near Pitka's Point (rm 103, Figure 2). Once caught, the fish were outfitted with an acoustic tag and released. In addition, ASL data were collected from Chinook salmon for comparison with ASL data collected from the Pilot Station sonar project (B. C. McIntosh, Commercial Fisheries Biologist, ADF&G, Fairbanks, personal communication).

## **OBJECTIVE**

The objective of the Yukon River ASL project is to summarize age, sex, and length data by fishery and location or by project from Chinook, summer chum, fall chum, and coho salmon collected throughout the Alaska portion of the Yukon River drainage.

## **METHODS**

Various state, federal, and non-governmental agencies collected ASL samples and data. Methods described are those procedures recommended by ADF&G. Other organizations may have collected and recorded data using slightly different procedures.

## **GENERAL SAMPLING PROCEDURES**

Scales were removed from the preferred area of the fish and mounted on gum cards for future age determination by ADF&G (INPFC 1963). The preferred area is located on the left side of the fish, 2 rows of scales above the lateral line along a line from the posterior insertion of the dorsal fin to the anterior insertion of the anal fin. One scale was removed from each chum salmon and a minimum of 3 scales were removed from each Chinook and coho salmon. Scale regeneration, or scale loss and rapid replacement, contributes to aging uncertainties primarily in the freshwater

growth area. Chinook and coho salmon usually rear in freshwater for 1 year or longer, hence 3 scales were removed from these fish to increase the chance of selecting a scale that could be aged (Bales and DuBois 2007).

Sex was determined by examining internal reproductive organs or external characteristics such as kype development and presence of reproductive organs at the vent. The Dall Point test fishery, LYTF, and carcass sampling surveys were the only projects where internal organs were consistently examined; hence, these projects have accurate sex composition. Other test fishery projects conducted by non-ADF&G staff were instructed to examine internal organs; however, this protocol may not have been adhered to in all projects. Internal organs were not examined from commercial and some subsistence harvests and some non-ADF&G staffed test fisheries, because cutting fish would decrease fish value to commercial buyers and subsistence fishermen prefer to cut their fish immediately before processing.

Lengths were determined by measuring each fish from mid-eye to fork of tail with a flexible cloth tape, fish board or fish cradle and were recorded to the nearest 5 mm increment. Field data were recorded in Rite in the Rain books and entered into MS Excel files. During the lower river summer chum salmon commercial harvest sampling, sex and length data were entered directly into Juniper data loggers and uploaded into an inseason database.

Weight and girth measurements were collected from subsistence harvested Chinook salmon at Anvik, Kaltag, Nulato, Galena, Ruby, Tanana, Rampart Rapids, Hess Creek, Fort Yukon and Eagle. The methods used to collect weight and girth data from these subsistence projects are not well-documented. Weight and girth measurements are not reported in this document.

## **SAMPLE COLLECTION**

### **Commercial Harvest Sampling**

ADF&G crews conducted commercial harvest sampling for summer chum, fall chum, and coho salmon in Districts 1, 2, and 6 and Subdistricts 5-B and 5-C. Chinook salmon incidentally caught during summer chum salmon directed commercial fishing periods and retained for subsistence use were sampled in Districts 1 and 2 by ADF&G crews (Table 1). Sample goals were 200 Chinook, 160 (each) summer and fall chum, and 120 coho salmon by period or week and district. District 1 samples were collected from a fish processor in Emmonak; District 2 samples were from tenders that purchased fish in District 2 and delivered these fish to the processing facility in District 1. Harvests of summer chum salmon in District 6 and fall chum salmon in Subdistricts 5-B and 5-C were presorted by the processing plant staff and sampled at a processing plant in North Pole near Fairbanks.

Off-loading crews placed each chum or coho salmon in a species-specific tote or bin. When excess fish were not available, crews sampled all available fish until the sample goal was attained. When excess fish were available, sampling crews selected a tote of fish and sampled every fish in the tote. Sampling crews worked quickly to attain sampling goals in the short time between fish delivery and processing.

Chinook salmon incidentally harvested during summer chum salmon directed commercial fishing periods in District 1 were sampled at the dock while the fishermen were signing their fish tickets. As each boat arrived at the dock a member of the ADF&G crew asked the captain of each boat for permission to sample any Chinook salmon they had harvested. If permission was granted, any Chinook salmon in the boat were laid out in the bottom of the boat or fish tote and

sampled. Due to the circumstances and conditions in which these fish were sampled, the length measurements were not collected in an ideal manner (i.e., completely flat on a level surface), and are therefore considered not as accurate as those collected under better circumstances (e.g., LYTF).

### **Subsistence Harvest Sampling**

The sample design for Chinook salmon subsistence harvests was to collect samples from each district along the Yukon River mainstem. Harvests from selected villages were sampled and the resulting age composition estimates were later combined for a drainagewide estimate (e. g., Leba and DuBois 2011). ADF&G selected villages for sampling based on past success and data gaps among districts. Collecting subsistence harvest samples from each selected village was opportunistic and depends on timing, availability, and willingness of fishermen to participate. Subsistence harvest sampling design is therefore what Geiger et al. (1990) termed a “grab” or “haphazard” sample, where the population is assumed to be nearly in random order and all available fish are sampled. Assuming consistent effort by samplers, more fish were sampled when more fish were available which tends to self-weight the samples by gear, area, and time period collected.

Subsistence harvests of Chinook, summer chum, and fall chum salmon were sampled during subsistence fishing openings or shortly after the closure. Sex, length, gear type, and mesh size data were collected in most samples. Weight and girth data were also collected from Chinook salmon at some subsistence sampling sites. If fish were processed before the sampling crew arrived, only scales may have been collected.

Numerous agencies employed technicians to sample Chinook salmon from local subsistence harvests. Association of Village Council Presidents (AVCP) conducted sampling in Alakanuk, Emmonak, and Saint Mary’s. Tanana Chiefs Conference (TCC) conducted sampling in Anvik, Nulato, Huslia, Galena, Ruby, Tanana, Hess Creek, Fort Yukon, and Eagle. The City of Kaltag sampled harvests near Kaltag. Stan Zuray and the Rapids Research Center (RCC) sampled harvests near Rampart Rapids. Pat Moore sampled fall chum salmon harvests near Tanana (Table 1).

### **Test Fishery Sampling**

The test fishery sampling goals were up to 30 (each) Chinook, summer chum, and fall chum salmon daily; and up to 20 coho salmon daily. The Dall Point test fishery crew (ADF&G) sampled Chinook salmon from 8.25 in mesh drift gillnets and summer chum salmon from 5.5 in mesh drift gillnets. The ADF&G crew sampled Chinook salmon at Big Eddy and Middle Mouth from 8.5 in mesh set gillnets and 8.25 in mesh drift gillnets, summer chum salmon from 5.5 in drift gillnets, and fall chum and coho salmon from 6.0 in mesh drift gillnets. In fish sampled from the Dall Point and the LYTF projects sex was determined by examination of internal reproductive organs for accurate sex determination. Test fishery crews in Mountain Village (YDFDA and Asa’carsarmiut Traditional Council) sampled Chinook salmon from 7.5 in mesh drift gillnets, and fall chum and coho salmon from 5-7/8 in mesh drift gillnets. The Pilot Station sonar crew (ADF&G) sampled Chinook salmon caught in a suite of drift gillnets of various mesh sizes (2.75 in, 4.0 in, 5.25 in, 6.5 in, 7.5 in, and 8.5 in). An acoustic tagging crew at the Pilot Station sonar site tagged and took ASL samples from Chinook salmon caught in 5.25 in, 6.0 in, 7.25 in, and 8.5 in mesh drift gillnets. The Eagle sonar crew (ADF&G) also used a suite of drift gillnets of various mesh sizes to sample Chinook (5.25 in, 6.5 in, 7.5 in, and 8.5 in) and fall



chum salmon (5.25 in and 7.5 in). Test fishery crews sampled every fish harvested until their daily sample goal was reached.

### **Escapement Sampling**

Several organizations that operated weirs, sonar projects, counting towers, and other ground-based surveys conducted escapement sampling (Table 1). Sampling goals varied among projects, but generally were 160 Chinook and 160 summer or fall chum salmon per event. An event may have been weekly sampling, based upon run timing, or a single sample goal for the season. Suggested sample goals, specific project objectives, fish abundance, historical fish passage, run timing, water levels, personnel, and budget were some of the issues considered by project leaders when assessing sample goals. The U.S. Fish and Wildlife Service (USFWS) collected samples at the East Fork Andreafsky and Gisasa rivers. Samples were collected from Henshaw Creek by TCC. Samples collected from the Anvik River were collected by ADF&G. Samples from the Chena River were collected by ADF&G Division of Sport Fish. Samples from the Salcha River were collected by Bering Sea Fisherman's Association (BSFA).

Chinook and summer chum salmon were live-sampled using a trap built into the weirs at the East Fork Andreafsky and Gisasa rivers and Henshaw Creek (see Sundlov et al. 2003 for an example of weir sampling and operation methods). Summer chum salmon were live-sampled using a beach seine in the Anvik River. Ground based surveys were used to sample Chinook salmon carcasses at the Anvik, East Fork Andreafsky, Chena, and Salcha rivers (Doxey et al. 2005).

### **AGE DETERMINATION**

Scales or vertebrae were used to determine age. The scales, which are mounted on gum cards, were impressed in cellulose acetate using methods described by Clutter and Whitesel (1956). Scale impressions were magnified and examined using a Microfiche reader. Age was determined by counting the number of freshwater and marine annuli. Annuli are the regions of the scale where the circuli, or rings, are tightly spaced representing slower growth rates associated with winter conditions (Mosher 1969).

Ages were entered into MS Access, or into an MS Excel file depending upon the format in which sex and length data were originally recorded. Ages were recorded using European notation, the number of freshwater annuli separated by a decimal from the number of marine annuli. Total age from the brood year is the sum of freshwater and marine annuli plus 1 to account for time spent in the gravel before hatching.

### **DATA ANALYSIS**

As observed from a given location, the ASL composition of a returning salmon population often changes over the course of the season (Molyneaux et al. 2006); therefore, to better estimate a total harvest or escapement, a stratified random sampling design was used. Samples are divided into time strata, ASL composition from the samples in each stratum are applied to the harvest or escapement for that stratum, and the season total is the strata sum. This design will minimize effects of disproportionate sampling when the ASL composition changes through a season. Strata were assigned to fishing periods for commercial harvests and date ranges for escapement estimates. Strata were adjusted depending on the number and distribution of samples collected and an attempt was made to include sufficient sample sizes within each stratum to estimate the proportion of each major age class with  $\alpha = 0.05$  and  $d = 0.1$ , where  $1-\alpha$  is the confidence

level and  $2d$  is the confidence interval width (Bromaghin 1993). The escapement or harvest for each stratum was provided by project leaders or ADF&G fish ticket harvest reports. Sample ASL compositions were applied to most commercial harvests and escapement estimates from the East Fork Andreafsky River weir, Anvik River sonar, Gisasa River weir, and Henshaw Creek weir.

Proportion of fish of age class  $a$  of sex  $s$  during the stratified period  $i$  was estimated as:

$$\hat{p}_{a,s,i} = \frac{n_{a,s,i}}{n_i}, \quad (1)$$

where,

$n_{a,s,i}$  = number of samples for age class  $a$  of sex  $s$  in stratified period  $i$ , and

$n_i$  = number of samples in stratified period  $i$ .

Within a given fishery, location, or project, the number of fish of specific age class  $a$  and sex  $s$  during a stratified period  $i$  was estimated as:

$$\hat{N}_{a,s,i} = \frac{n_{a,s,i}}{n_i} N_i, \quad (2)$$

where,

$n_{a,s,i}$  = number of samples for age class  $a$  of sex  $s$  in stratified period  $i$ ,

$n_i$  = number of samples in stratified period  $i$ , and

$N_i$  = total number of fish during the stratified period  $i$ .

When data for all strata were available, the seasonwide proportion and number of fish of specific age  $a$  and sex  $s$  was estimated as:

$$\begin{aligned} \hat{p}_{a,s} &= \frac{1}{N} \sum_i N_i \hat{p}_{a,s,i}, \quad N = \sum_i N_i \\ \hat{N}_{a,s} &= \sum_i \hat{N}_{a,s,i}. \end{aligned} \quad (3)$$

Seasonwide age proportion was estimated as:

$$\hat{p}_a = \frac{1}{N} \sum_i \sum_s N_i \hat{p}_{a,s,i}. \quad (4)$$

Seasonwide female proportion was estimated as:

$$\hat{p}_{s=f} = \frac{1}{N} \sum_i \sum_a N_i \hat{p}_{a,s,i}. \quad (5)$$

For the length, mean length, and standard error of age  $a$  and sex  $s$  for stratified period  $i$  was estimated as:

$$\begin{aligned} \bar{y}_{a,s,i} &= \frac{\sum_j y_{a,s,i,j}}{n_{a,s,i}} \\ se &= \sqrt{\frac{s_{a,s,i}^2}{n_{a,s,i}}}. \end{aligned} \quad (6)$$

Where  $y_{a,s,i,j}$  equals the length of  $j$ -th fish of age  $a$  and sex  $s$ , sampled during period  $i$ , and

$$s_{a,s,i}^2 = \frac{\sum_j (y_{a,s,i,j} - \bar{y}_{a,s,i})^2}{n_{a,s,i} - 1}. \quad (7)$$

When data for all strata were available, seasonwide mean length and standard error of age  $a$  and sex  $s$  was estimated as:

$$\bar{y}_{a,s} = \frac{1}{N_{a,s}} \sum_i N_{a,s,i} \bar{y}_{a,s,i} \quad (8)$$

$$se = \sqrt{\hat{V}(\bar{y}_{a,s})}.$$

Where:

$$\hat{V}(\bar{y}_{a,s}) = \frac{1}{N_{a,s}^2} \sum_i N_{a,s,i}^2 \hat{V}(\bar{y}_{a,s,i}) \quad (9)$$

$$\hat{V}(\bar{y}_{a,s,i}) = \left( \frac{s_{a,s,i}^2}{n_{a,s,i}} \right).$$

Samples from other projects (test fisheries and subsistence harvests) are summarized by sample size only, without applying any harvest numbers or run strength indices. These samples may also be summarized by mesh size, gear type, location, or date ranges.

## RESULTS

### CHINOOK SALMON

In 2011, a total of 10,051 Chinook salmon were sampled for ASL data from the U.S. portion of the Yukon River drainage (Tables 2–5; Appendices A1–A32).

Age, sex, and length samples were collected from 454 Chinook salmon incidentally harvested during summer chum salmon directed commercial fishing periods. Most samples ( $n = 427$ ) were from Chinook salmon harvested in District 1. The samples collected from District 1 were considered sufficient to represent the entire District 1 harvest. The samples collected from District 2 ( $n = 27$ ) were not considered representative of the District 2 harvest due to the small sample size. Age-1.2 and age-1.3 fish were the most abundant in the District 1 harvest samples. Females comprised 19.2% of the District 1 harvest and 18.5% of the District 2 samples, respectively (Table 2; Appendices A1–A2).

ASL samples were collected from 2,089 subsistence harvested Chinook salmon (Table 2; Appendices A3–A16). Only length and sex data were collected from 1,203 Chinook salmon harvested from Rampart Rapids (Table 2; Appendix A13). Age-1.3 fish predominated from all of the subsistence locations, with the exception of the 7.5 in mesh drift gillnet harvest from Kaltag and the 7.5 in mesh set gillnet harvest from Hess Creek, which had 49.8% and 50.0% age-1.4 fish, respectively (Table 2; Appendices A7 and A14). Females in the subsistence harvest ranged from 7.2% in the Ruby gillnet and fish wheel harvest to 41.9% in the Tanana fish wheel harvest (Table 2; Appendices A11 and A12).

Age, sex, and length samples were collected from a total of 3,476 Chinook salmon at 6 test fishery locations (Tables 2 and 3; Appendices A17–A24). Age-1.4 fish predominated from all locations, with the exception of the Mountain Village test fishery and Pilot Station sonar, which had 59.0% and 54.3% age-1.3 fish, respectively. The Middle Mouth test fishery and Eagle sonar had the highest percentage of age-1.4 fish with 64.7% and 58.9%, respectively (Table 2; Appendices A20 and A25). In the test fishery samples, females ranged from 28.8% at Pilot Station sonar to 54.1% at the Middle Mouth 8.5 in mesh set gillnet project (Table 2; Appendices A23 and A20). At the LYTF projects, age distribution was different by sex, where the majority of the younger fish (age-1.2 and age-1.3) were male and more of the older fish (age-1.4 and age-1.5) were female. This relationship between Chinook salmon age and sex is typical and has been reported previously from the Yukon and Kuskokwim rivers (Horne-Brine et al. 2009; Molyneaux et al. 2006).

Age, sex, and length samples were collected from a total of 2,788 Chinook salmon at 7 escapement projects (Tables 2 and 4; Appendices A25–A31). Age-1.3 Chinook salmon predominated from most escapement projects, with the exception of the East Fork Andreafsky River weir, which had 45.6% age-1.2 fish and the Salcha River carcass survey, which had 47.6% age-1.4 fish (Table 2; Appendices 25 and 31). Female percentages ranged from 7.1% in the East Fork Andreafsky River carcass survey to 42.1% from the Salcha River carcass survey (Table 2; Appendices 25 and A31).

The acoustic tagging project collected age, sex, and length samples from a total of 41 Chinook salmon during 2011 (Table 2; Appendix A32). Age-1.3 Chinook salmon predominated and females comprised 51.2% of fish sampled.

Age-1.3 Chinook salmon predominated from most of the subsistence harvests and escapement projects and age-1.4 Chinook salmon predominated from most of the test fishery harvests (Table 2). This is likely due to mesh size selectivity with the subsistence harvest restricted to 7.5 in or smaller mesh gillnets and many test fish projects use gillnets with a mesh size up to 8.5 in.

From escapement projects, with the exception of the Salcha River, the percentage of 6-year-old fish (age-1.4 and age-2.3) was below the historical average (Table 4). The 2011 percentage of 5-year-old (age-1.3 and age-2.2) Chinook salmon from LYTF, East Fork Andreafsky River, Anvik River, Chena River, and Salcha River were near, or above, the 5-year averages (Tables 3 and 4). The above average percentage of age-1.3 Chinook salmon is attributed to the 2006 brood year. Above average percentages from the 2006 brood year were also observed from all escapement projects in 2010 from 4-year-old-fish (age-1.2 and age-2.1; Schumann and DuBois 2011).

The male mean length by age from all projects was: 563 mm for age-1.2, 714 mm for age-1.3, and 822 mm for age-1.4 fish. The female mean length by age from all projects was: 562 mm for age-1.2, 761 mm for age-1.3, and 854 mm for age-1.4 fish (Table 5).

## **SUMMER CHUM SALMON**

A total of 6,828 summer chum salmon were sampled for ASL data from the Alaska portion of Yukon River drainage in 2011 (Tables 6–9; Appendices B1–B11).

Age, sex, and length samples were collected from 2,251 commercially harvested summer chum salmon; most of these ( $n=1,728$ ) were from District 1 (Tables 6 and 7; Appendices B1–B3). The percentages of age-0.3 and age-0.4 fish in the District 1 commercial harvest were similar: 50.2% and 49.1%, respectively (Appendix B1). Age-0.4 fish predominated from District 2 Period 1

samples. The overall District 2 harvest was predominated by age-0.3 fish (Appendix B2). The overall age and sex composition for the District 2 harvest was estimated by applying the age and sex composition of District 1 periods to unsampled District 2 periods. In District 6, age-0.4 fish predominated with 52.1% (Appendix B3) Females represented 38.8% of the District 1, 41.2% of the District 2, and 36.7% of the District 6 commercial harvest (Tables 6 and 7).

Age, sex, and length samples from 1,698 summer chum salmon were collected from the Dall Point test fishery and the LYTF projects combined (Table 6; Appendices B4–B7). Age-0.4 fish were the most common age class from the LYTF projects, and age-0.3 fish predominated in the Dall Point test fishery. Compared with the LYTF historical average (1987–1988, 1990–2006, 2009–2011), the 2011 LYTF summer chum salmon age-0.2, age-0.3 and age-0.5 percentages were below average and age-0.4 percentage was above average (Table 8). Females made up 21.0% of summer chum salmon sampled at Dall Point, 62.8% at Big Eddy, and 63.7% at Middle Mouth, respectively.

Age, sex, and length samples from 2,879 summer chum salmon were collected from 4 escapement projects in tributaries of the Yukon River (Table 6; Appendices B8–B11). Age-0.4 fish predominated from the East Fork Andreafsky River and Henshaw Creek weirs at 63.4% and 53.4%, respectively (Table 6; Appendices B8 and B11). The percentages of age-0.3 and age-0.4 fish from the Anvik River sonar was nearly equal at 49.2% and 49.7% (Appendix B9). Age-0.3 fish were the most abundant from the Gisasa River weir at 54.8% (Appendix B10). The average percentage of females from all escapement projects was 52.8%. Henshaw Creek weir samples had the highest percentage of females at 61.2% and the East Fork Andreafsky River weir had the lowest at 42.1% (Table 6; Appendices B11 and B8).

Samples from most summer chum salmon test fishery and escapement projects had female percentages near 50% which is within the typical range. The Dall Point test fishery was the most extreme outlier with only 21.0% of the samples being female. The drastic difference in the sex composition of the Dall Point test fishery could be due to the experimental nature of the project or poor weather conditions limiting project operations. Summer chum salmon samples from the commercial fisheries had female percentages below 45% (Table 6). This low female percentage is most likely due to the use of 6.0 in mesh that is more selective for larger summer chum salmon, which are typically male (Karpovich and DuBois 2007). The LYTF female percentage in 2011 was slightly above average (Table 8).

The mean length for male summer chum salmon by age was: 554 mm for age-0.2, 577 mm for age-0.3, 586 mm for age-0.4, and 592 mm for age-0.5 fish. The female mean length by age was: 534 mm for age-0.2, 554 mm for age-0.3, 561 mm for age-0.4, and 570 mm for age-0.5 fish (Table 9). At the LYTF projects, male fish were found to be larger on average than female fish which was consistent with findings by Karpovich and DuBois (2007) (Table 9). Molyneaux et al. (2006) also reported the female mean lengths were generally less than males of the same age in summer chum salmon on the Kuskokwim River.

## **FALL CHUM SALMON**

A total of 4,402 fall chum salmon were sampled for ASL data from the Alaska portion of the Yukon River drainage in 2011 (Tables 6, 7, and 9; Appendices C1–C9). Age-0.3 fall chum salmon predominated in the commercial, subsistence, and test fisheries, which is typical (Table 6). Samples from most fall chum salmon projects had female percentages near 50%.

Age, sex, and length samples were collected from 1,933 commercially harvested fall chum salmon. Age-0.3 fish predominated in all districts and subdistricts. Females represented 48.5% of the District 1, 46.3% of the District 2, and 53.1% of the Subdistricts 5-B and 5-C commercial harvest (Tables 6 and 7; Appendices C1–3).

Age, sex, and length samples were collected from 293 fall chum salmon in the Subdistrict 5-A subsistence harvest. Age-0.3 fish predominated at 85.7%, and females comprised 54.3% of the samples (Table 6; Appendix C4).

Age, sex, and length samples were collected from 2,176 fall chum salmon harvested in 4 test fisheries (Table 6; Appendices C5–C9). Overall, the test fishery samples were predominated by age-0.3 fish (70.6%) and females composed 51.4% of fish sampled (Table 6). The Eagle sonar test fishery had the lowest percentage of females (40.8%) out of all fall chum salmon projects (Table 6).

The mean length for male fall chum salmon by age was: 560 mm for age-0.2, 596 mm for age-0.3, 608 mm for age-0.4, and 617 mm for age-0.5 fish. The female mean length by age was: 560 mm for age-0.2, 581 mm for age-0.3, 587 mm for age-0.4, and 595 mm for age-0.5 fish (Table 9). Similar to summer chum salmon, length comparisons between males and females for fall chum salmon showed that males were larger than females, which is consistent with findings by Karpovich and DuBois (2007).

## **COHO SALMON**

A total of 1,239 coho salmon were sampled for ASL data from the Yukon River drainage in 2011 (Tables 10 and 11; Appendices D1–D6). Age-2.1 coho salmon predominated; this is typically the most common age of coho salmon that return to the drainage (Table 10).

Age, sex, and length samples were collected from 774 commercially harvested coho salmon from the District 1 and 2 commercial harvests. Age-2.1 fish predominated the harvest in both districts. Females comprised 50.2% of the District 1 and 43.6% of the District 2 commercial harvest (Table 10; Appendices D1–D2).

Age, sex, and length samples were collected from 465 coho salmon at 3 test fishery projects, (Table 10; Appendices D3–D6). Overall, the test fishery samples were predominated by age-2.1 fish (67.9%) followed by age-1.1 fish (29.2%). Females were 51.6% of the test fishery samples (Table 10). The Middle Mouth test fish harvest had the highest percentage of female fish; the sex of these fish was determined from internal characteristics (55.3%, Table 11).

The male mean length by age for coho salmon was: 570 mm for age-1.1, 568 mm for age-2.1, and 581 mm for age-3.1 fish. The female mean length by age was: 571 mm for age-1.1, 569 mm for age-2.1, and 565 mm for age-3.1 fish (Table 11). In 2011, there was a difference in mean length by sex with females being slightly larger than males at age, with the exception of the age-3.1 males. It also appeared that age-1.1 fish were longer on average than the other 2 age classes for both males and females, with the exception of age-3.1 males (Table 11). While these differences were not substantial in 2011, similar differences were observed in 2010, which suggests a pattern for length by age and sex.

## DISCUSSION

Age, sex, and length data have been collected from Yukon River salmon species since the 1960s. This information aids in fishery management decisions and allows researchers to evaluate annual and historical changes in the ASL composition of salmon throughout the Yukon River drainage. It also provides valuable data for researchers creating run forecasts. Yukon River ASL sampling projects were designed to account for temporal and spatial variability that exists within salmon populations, but there is potential for some biases caused by small sample sizes, scale absorption, and collection methods. Age, sex, and length data users are cautioned to be aware of these inherent biases when interpreting data.

One possible bias, due to scale absorption, exists in samples collected from carcasses as well as those taken on or near the spawning grounds. This potential bias is caused by the margin of the scale being absorbed as an energy reserve in the last few weeks of a salmon's life (Clutter and Whitesel 1956). Scale absorption normally becomes more pronounced the farther upriver the samples are collected and may lead to under aging because little evidence of the outermost annulus remains.

A bias often results from inherent size selectivity in sample collection methods. This bias is most apparent with Chinook salmon, because of the large range in fish size, where males and younger aged fish predominate in the smaller size fish. Gillnets are size selective based on mesh size, and fish wheels tend to be biased towards smaller sized fish that migrate near shore in lower water velocities (Meehan 1961). In spawning ground carcass recoveries, Kissner and Hubartt (1986) indicated that Chinook salmon males tend to drift downstream while females tend to remain near their redds; during periods of increased water velocities, smaller fish have a greater potential to be carried downstream and out of the study area. Zhou (2002) indicated that fish size and stream flow affect carcass recovery rates. This nonrandom dispersal of carcasses could bias ASL data towards females and larger older-aged fish, although proper sampling designs have been shown to reduce this (Evenson 1991; Skaugstad 1990). Many scientists also believe a bias may exist in weir sampling towards smaller fish when larger fish are more reluctant, or "trap shy", to enter a confined weir trap structure and be available for live sampling. Though trap shyness has yet to be scientifically evaluated, users of these data should be aware that this potential bias exists. Sampling biases are described in greater detail by Molyneaux et al. (2006).

Historically, Chinook salmon caught in the LYTF with 8.5 in mesh have been close to 50% female (Table 3). Females made up 52.4% of the 2011 samples from the LYTF, which was near the historical average (Table 3). Samples collected from individual projects and locations can vary in sex composition, which is often related to the gear used to capture the fish and to the relative percentage of smaller age-1.2 fish which are usually male. A relatively low percentage of females can be attributable to the selectivity of small mesh gillnets or fish wheels, where smaller and typically male fish are caught (Meehan 1961; Molyneaux et al. 2005). In 2011, low percentages of females were found in the District 1 and 2 commercial harvests, all of the subsistence sampling projects with the exception of samples collected from Kaltag and Tanana, and smaller mesh gear from the Mountain Village, and Pilot Station test fisheries (Table 2). The low percentage of females in the Districts 1 and 2 commercial harvests as well as the majority of the subsistence harvest sampling projects is most likely due to restricting fishermen to small mesh sizes that harvested smaller, usually male, Chinook salmon. The percentage of females

from the East Fork Andreafsky River weir, the Anvik, Chena, and Salcha rivers were below the historical average (Table 4).

At the LYTF projects where sex was determined through internal examination of reproductive organs, and is therefore more accurate than other projects using external characteristics for sex determination, Chinook salmon males were smaller on average than females, which is consistent with recent analyses. Karpovich and DuBois (2007) found that males were smaller than females with the exception of the age-1.5 fish. Molyneaux et al. (2006) also reported male Chinook salmon had a smaller mean length than females on the Kuskokwim River.

## **ACKNOWLEDGEMENTS**

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## **TABLES AND FIGURES**

Table 1.—Projects and salmon species for which age, sex, and length data were collected in 2011 from the Yukon area.

Project Type	Location	Salmon Species (ASL Summaries Present = X)			
		Chinook	Summer Chum	Fall Chum	Coho
Commercial	District 1 <sup>a</sup>	X <sup>b</sup>	X	X	X
	District 2 <sup>a</sup>	X <sup>b</sup>	X	X	X
	Subdistricts 5-B, 5-C <sup>a</sup>			X	
	District 6 <sup>a</sup>		X		
Subsistence	District 1, Alakanuk and Emmonak <sup>c</sup>	X			
	District 2 St. Mary's <sup>c</sup>	X			
	District 3, and Subdistrict 4-A, Anvik <sup>d</sup>	X			
	Subdistrict 4-A, Kaltag <sup>e</sup>	X			
	Subdistrict 4-A, Nulato <sup>d</sup>	X			
	Huslia <sup>d</sup>	X			
	Subdistricts 4-A, 4-B, 4-C Galena <sup>d</sup>	X			
	Subdistricts 4-B, 4-C Ruby <sup>d</sup>	X			
	Subdistricts 5-A, 5-B, Tanana <sup>a,f</sup>	X		X	
	Subdistrict 5-B, Rampart Rapids <sup>g</sup>	X			
	Subdistrict 5-C, Hess Creek <sup>d</sup>	X			
	Subdistrict 5-D, Fort Yukon <sup>d</sup>	X			
	Subdistrict 5-D, Eagle <sup>d</sup>	X			
Test Fishery	Dall Point <sup>a</sup>	X	X		
	Big Eddy <sup>a</sup>	X	X	X	X
	Middle Mouth <sup>a</sup>	X	X	X	X
	Mountain Village <sup>h</sup>	X		X	X
	Pilot Station Sonar <sup>a</sup>	X			
	Eagle Sonar <sup>a</sup>	X		X	
Escapement	Andreafsky River, East Fork <sup>i</sup>	X	X		
	Anvik River <sup>a</sup>	X	X		
	Chena River <sup>j</sup>	X			
	Gisasa River <sup>i</sup>	X	X		
	Henshaw Creek <sup>d</sup>	X	X		
	Salcha River <sup>k</sup>	X			
Acoustic Tagging	Pilot Station <sup>a</sup>	X			

<sup>a</sup> Project was operated by the Alaska Department of Fish and Game, Division of Commercial Fish.

<sup>b</sup> Incidental harvest from the commercial summer chum salmon fishery.

<sup>c</sup> Project was operated by Association of Village Council Presidents.

<sup>d</sup> Project was operated by the Tanana Chiefs Conference.

<sup>e</sup> Project was operated by the City of Kaltag.

<sup>f</sup> Project was operated by Pat Moore.

<sup>g</sup> Project was operated by the Rapids Research Center and Stan Zuray.

<sup>h</sup> Project was operated by the Asa'carsarmiut Traditional Council.

<sup>i</sup> Project was operated by the United States Fish and Wildlife Service.

<sup>j</sup> Project was operated by the Alaska Department of Fish and Game, Division of Sport Fish.

<sup>k</sup> Project was operated by the Bering Sea Fishermen's Association.

Table 2.—Yukon River Chinook salmon age and female percentages from commercial, subsistence, test fishery, escapement, and tagging projects, 2011.

Project Type Location and (gear)	Sample Size	Brood Year (Age)											Female
		2008	2007		2006		2005		2004		2003		
		(1.1)	(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)	
Commercial													
District 1 (≤ 6" mesh gillnet) <sup>a</sup>	427	0.0	37.5	0.0	39.2	0.2	21.4	0.4	0.7	0.6	0.0	0.0	19.2
District 2 (≤ 6" mesh gillnet) <sup>a, b</sup>	27	0.0	40.7	0.0	37.0	0.0	22.2	0.0	0.0	0.0	0.0	0.0	18.5
Subsistence													
District 1, Alakanuk (gillnet)	53	0.0	3.8	0.0	71.7	0.0	24.5	0.0	0.0	0.0	0.0	0.0	17.0
District 1, Emmonak (mesh gillnet)	53	0.0	11.3	0.0	71.7	0.0	17.0	0.0	0.0	0.0	0.0	0.0	17.0
District 2, St. Mary's (mesh gillnet)	177	0.0	10.2	0.0	58.8	0.6	28.2	0.6	0.6	1.1	0.0	0.0	22.6
District 3 and Subdistrict 4–A, Anvik (gillnet)	351	0.0	0.0	0.0	59.8	0.0	36.5	1.1	0.3	2.3	0.0	0.0	35.3
Subdistrict 4–A, Kaltag (7.5" mesh gillnet)	201	0.0	2.0	0.0	44.3	0.0	49.8	1.0	1.0	2.0	0.0	0.0	40.3
Subdistrict 4–A, Nulato (7.5" mesh gillnet)	60	0.0	1.7	0.0	55.0	0.0	41.7	0.0	1.7	0.0	0.0	0.0	33.3
Huslia (7.5" mesh gillnet)	68	0.0	0.0	0.0	75.0	0.0	23.5	0.0	1.5	0.0	0.0	0.0	27.9
Subdistricts 4–A, 4–B, 4–C Galena (gillnet, fish wheel)	475	0.0	2.3	0.0	52.8	0.0	43.6	0.4	0.0	0.8	0.0	0.0	26.9
Subdistricts 4–B, 4–C Ruby (gillnet, fish wheel)	69	0.0	29.0	0.0	63.8	0.0	7.2	0.0	0.0	0.0	0.0	0.0	7.2
Subdistricts 5–B Tanana (fish wheel)	186	0.0	17.2	0.0	38.7	0.5	37.1	1.1	1.1	4.3	0.0	0.0	41.9
Subdistrict 5–B, Rampart Rapids (gillnet, fish wheel) <sup>c</sup>	1,203	–	–	–	–	–	–	–	–	–	–	–	20.4
Subdistrict 5–C, Hess Creek (7.5" mesh gillnet)	194	0.0	2.1	0.0	39.7	0.0	50.0	0.5	0.5	7.2	0.0	0.0	30.9
Subdistrict 5–D, Fort Yukon (7.5" mesh gillnet)	39	0.0	25.6	0.0	48.7	0.0	20.5	0.0	0.0	5.1	0.0	0.0	17.9
Subdistrict 5–D, Eagle (gillnet, fish wheel)	163	0.0	11.7	0.0	57.1	0.6	25.2	2.5	1.2	1.8	0.0	0.0	16.0
Test Fishery													
Dall Point (8.25" mesh drift gillnet)	2	0.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	50.0
Big Eddy (8.25" mesh drift gillnet)	210	0.0	1.4	0.0	34.8	0.0	56.7	0.5	1.0	5.7	0.0	0.0	52.9
Big Eddy (8.5" mesh set gillnet)	238	0.0	3.8	0.0	34.5	0.0	55.0	0.4	3.4	2.9	0.0	0.0	47.1
Middle Mouth (8.5" mesh set gillnet)	760	0.0	0.7	0.0	30.8	0.0	64.9	0.3	1.1	2.2	0.0	0.1	54.1
Big Eddy & Middle Mouth (8.5" mesh set gillnet)	998	0.0	1.4	0.0	31.7	0.0	62.5	0.3	1.6	2.4	0.0	0.1	52.4
Mountain Village (7.5" mesh drift gillnet)	366	0.0	1.1	0.0	59.0	0.0	38.5	0.3	0.0	1.1	0.0	0.0	31.7
Pilot Station Sonar (2.75" to 8.5" mesh drift gillnet)	486	0.4	9.3	0.0	54.3	0.0	32.1	1.2	1.0	1.6	0.0	0.0	28.8
Eagle Sonar (5.25" to 8.5" mesh drift gillnet)	416	0.0	2.2	0.0	29.6	0.0	58.9	1.4	1.7	6.3	0.0	0.0	51.0

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Table 2.–Page 2 of 2.

Project Type Location and (gear)	Sample Size	Brood Year (Age)											Female
		2008	2007		2006		2005		2004		2003		
		(1.1)	(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)	
Escapement													
Andreafsky River, East Fork (weir trap)	542	0.0	45.6	0.0	39.6	0.0	14.5	0.1	0.2	0.0	0.0	0.0	19.9
Andreafsky River, East Fork (carcass)	28	0.0	32.1	0.0	46.4	0.0	21.4	0.0	0.0	0.0	0.0	0.0	7.1
Anvik River (beach seine, carcass)	241	0.0	17.0	0.0	56.8	0.0	25.7	0.0	0.0	0.4	0.0	0.0	26.1
Chena River (carcass)	425	0.2	22.6	0.0	46.6	0.2	28.7	0.0	0.9	0.7	0.0	0.0	31.8
Gisasa River (weir trap)	597	0.0	30.1	0.3	56.3	0.4	12.0	0.3	0.3	0.0	0.0	0.3	18.0
Henshaw Creek (weir trap)	428	0.2	20.7	0.0	47.4	0.0	31.0	0.2	0.2	0.2	0.0	0.0	35.0
Salcha River (carcass)	527	0.2	14.6	0.0	35.5	0.0	47.6	0.6	1.5	0.0	0.0	0.0	42.1
Acoustic Tagging													
Pilot Station (5.25" to 8.5" mesh drift gillnet)	41	0.0	0.0	0.0	48.8	0.0	43.9	0.0	2.4	4.9	0.0	0.0	51.2
Total Chinook		10,051											

<sup>a</sup> Incidental harvest from the summer chum salmon commercial fishery.

<sup>b</sup> Only sampled fish from Periods 1, 2, and 5. Not representative of harvest.

<sup>c</sup> Project only collected sex and length data.

Table 3.—Chinook salmon age and female percentages from the Lower Yukon River test fishery (combined Big Eddy and Middle Mouth sites) 8.5 in mesh set gillnet, 1985–2011.

Year	Sample Size	Number of Days	Age						Female
			3 yr (1.1)	4 yr (1.2, 2.1)	5 yr (1.3, 2.2)	6 yr (1.4, 2.3)	7 yr (1.5, 2.4)	8 yr (1.6, 2.5)	
1985	309	18	0.0	3.9	8.4	79.3	8.1	0.3	53.7
1986	533	25	0.3	0.9	22.7	52.9	23.1	0.2	46.3
1987	465	20	0.3	0.9	3.0	78.5	17.0	0.4	62.8
1988	262	30	0.0	2.3	15.3	43.9	37.8	0.8	56.1
1989	381	29	0.0	0.8	17.8	67.2	13.9	0.5	53.0
1990	227	23	0.0	3.5	11.0	76.7	8.8	0.0	56.4
1991	356	27	0.0	1.4	42.1	48.9	7.0	0.6	49.2
1992	359	19	0.0	1.1	10.6	82.7	5.0	0.6	56.5
1993	472	25	0.0	0.8	25.8	63.8	9.3	0.2	50.8
1994	653	41	0.2	1.4	41.3	51.8	5.5	0.0	47.3
1995	445	19	0.0	0.9	11.2	81.6	6.3	0.0	50.8
1996	355	13	0.0	1.1	61.4	21.4	16.3	0.0	53.0
1997	302	12	0.0	1.7	9.6	86.4	2.6	0.0	51.3
1998	928	39	0.0	1.3	43.4	45.3	9.9	0.1	50.2
1999	942	35	0.0	0.7	9.1	87.0	3.1	0.0	61.4
2000	950	42	0.2	0.7	19.2	71.1	9.1	0.0	53.4
2001	1,020	37	0.0	0.5	11.0	80.6	8.0	0.0	56.9
2002	1,050	43	0.0	2.5	20.5	64.9	12.1	0.0	52.2
2003	1,400	50	0.0	0.6	24.1	68.0	7.3	0.1	52.5
2004	865	48	0.1	4.3	18.5	74.5	2.7	0.0	58.2
2005	994	43	0.0	1.5	40.9	55.0	2.5	0.0	48.9
2006	987	38	0.0	2.2	50.6	45.0	2.2	0.0	48.5
2007	1,030	42	0.0	4.7	14.4	80.2	0.8	0.0	52.5
2008	1,271	43	0.0	1.2	44.4	51.0	3.5	0.0	46.3
2009	1,035	42	0.0	3.4	9.1	85.5	2.0	0.0	60.3
2010	1,328	37	0.2	4.1	59.6	33.6	2.6	0.0	47.8
2011	998	42	0.0	1.4	31.7	62.8	4.0	0.1	52.4
Average <sup>a</sup> (1994, 1998-2010)	728	32	0.1	2.1	29.0	63.8	5.1	0.0	52.6
5-yr average (2006-2010)	1,130	40	0.0	3.1	35.6	59.1	2.2	0.0	51.1

*Note:* The Lower Yukon River test fishery was conducted from the end of May through July 15. Before 1998, this test fishery was often discontinuous or was not conducted throughout the season. The “Number of Days” refers only to those days when scale samples were collected from Chinook salmon and aged.

<sup>a</sup> The averages only include years when samples were collected throughout the season and include samples with a 35 day season minimum. Averages were not weighted by number of fish sampled each year.

Table 4.—Yukon River Chinook salmon age and female percentages from selected escapement projects, 1985–2011.

Project	Year	Sample Size	Age						Female
			3 yr (1.1)	4 yr (1.2, 2.1)	5 yr (1.3, 2.2)	6 yr (1.4, 2.3)	7 yr (1.5, 2.4)	8 yr (1.6, 2.5)	
Andreafsky River, East Fork	1985 <sup>a</sup>	445	0.0	39.6	12.8	43.6	4.0	0.0	33.2
	1986 <sup>b</sup>	275	0.0	2.2	69.8	21.8	6.2	0.0	23.3
	1987 <sup>b</sup>	383	0.3	4.7	8.9	83.7	2.4	0.0	56.1
	1988 <sup>b</sup>	403	0.2	27.8	29.5	26.8	15.6	0.0	38.7
	1989	227	0.0	5.3	71.8	21.2	1.7	0.0	13.6
	1990	583	0.6	31.8	28.7	37.9	0.9	0.0	41.6
	1991	424	0.0	10.3	56.9	30.5	2.3	0.0	33.9
	1992	367	0.0	23.1	48.1	25.0	3.8	0.0	21.2
	1993	406	0.4	16.9	38.7	41.8	2.3	0.0	29.9
	1994 <sup>c</sup>	440	0.0	8.0	53.0	34.5	4.3	0.2	35.5
	1995 <sup>c</sup>	340	0.0	35.0	15.7	47.5	1.7	0.0	43.7
	1996 <sup>c</sup>	332	1.2	6.6	74.1	13.9	4.2	0.0	41.9
	1997 <sup>c</sup>	410	0.0	52.7	15.6	31.7	0.0	0.0	36.8
	1998 <sup>c</sup>	370	0.0	16.8	71.4	11.1	0.8	0.0	29.0
	1999 <sup>c</sup>	357	0.3	34.5	32.2	32.5	0.6	0.0	28.6
	2000 <sup>c</sup>	175	0.0	12.6	49.1	38.3	0.0	0.0	54.3
	2001 <sup>c, d</sup>	124	0.0	14.5	18.5	64.5	2.4	0.0	63.7
	2002 <sup>c</sup>	436	0.0	30.5	48.2	20.0	1.4	0.0	21.1
	2003 <sup>c</sup>	510	0.5	16.0	51.9	30.7	0.8	0.0	46.2
	2004 <sup>c</sup>	508	0.0	39.9	42.6	17.1	0.4	0.0	37.3
	2005 <sup>c</sup>	389	0.0	15.0	64.3	20.2	0.5	0.0	50.2
	2006 <sup>c</sup>	454	0.0	17.0	54.9	28.1	0.0	0.0	42.6
	2007 <sup>c, e</sup>	631	0.0	41.7	25.7	32.0	0.6	0.0	—
	2008 <sup>c</sup>	466	0.0	3.8	74.5	20.1	1.5	0.0	34.8
	2009 <sup>c</sup>	2,312	0.1	25.0	15.5	58.7	0.5	0.0	46.0
	2010 <sup>c</sup>	624	0.3	41.3	46.8	10.5	1.0	0.1	48.6
	2011 <sup>c</sup>	542	0.0	45.6	39.6	14.6	0.2	0.0	19.9
Average <sup>f</sup> (1985-2010)			0.2	22.3	44.0	31.2	2.3	0.0	37.0
5 year Average <sup>f</sup> (2006-2010)			0.1	25.8	43.5	29.9	0.7	0.0	43.0

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Table 4.–Page 2 of 4.

Project	Year	Sample Size	Age						Female
			3 yr (1.1)	4 yr (1.2, 2.1)	5 yr (1.3, 2.2)	6 yr (1.4, 2.3)	7 yr (1.5, 2.4)	8 yr (1.6, 2.5)	
Anvik	1985 <sup>a,g</sup>	33	0.0	30.3	39.4	30.3	0.0	0.0	24.2
River	1986 <sup>a</sup>	142	0.0	0.7	50.0	38.0	11.3	0.0	67.2
	1987 <sup>a</sup>	238	0.0	9.5	13.1	73.9	3.7	0.0	58.7
	1988 <sup>a</sup>	246	0.0	30.5	38.2	27.2	4.1	0.0	29.7
	1989 <sup>a</sup>	381	0.3	4.2	49.1	43.5	2.9	0.0	40.7
	1990 <sup>a</sup>	407	0.3	26.3	26.0	43.8	3.8	0.0	37.0
	1991 <sup>a</sup>	378	0.0	10.3	55.0	31.7	2.9	0.0	41.0
	1992 <sup>a</sup>	315	0.0	9.5	38.1	50.8	1.6	0.0	41.3
	1993 <sup>a</sup>	340	0.0	13.8	38.5	45.6	2.1	0.0	42.1
	1994 <sup>a</sup>	405	0.0	3.0	51.9	39.8	5.4	0.0	42.0
	1995 <sup>a</sup>	315	0.0	9.5	38.1	50.8	1.6	0.0	41.3
	1996 <sup>a</sup>	262	0.0	9.9	55.4	24.4	9.9	0.4	35.1
	1997 <sup>a</sup>	304	0.0	25.0	30.6	44.1	0.3	0.0	36.8
	1998 <sup>a</sup>	327	0.3	14.7	59.9	23.9	1.2	0.0	32.7
	1999 <sup>a</sup>	343	0.0	9.3	42.5	48.1	0.0	0.0	37.9
	2000 <sup>a</sup>	203	0.0	4.9	41.9	52.7	0.5	0.0	40.9
	2001 <sup>a</sup>	332	0.0	11.1	30.1	53.0	5.7	0.0	38.3
	2002 <sup>a</sup>	313	0.0	19.5	43.1	34.2	3.2	0.0	28.8
	2003 <sup>a</sup>	428	0.2	8.9	54.7	33.2	3.0	0.0	37.6
	2004 <sup>a</sup>	332	0.6	32.2	40.7	25.6	0.9	0.0	27.6
	2005 <sup>a</sup>	227	0.0	8.8	61.2	27.7	2.2	0.0	51.1
	2006 <sup>a</sup>	169	0.0	10.7	47.9	41.4	0.0	0.0	43.2
	2007 <sup>a, h</sup>	—	—	—	—	—	—	—	—
	2008 <sup>a</sup>	223	0.0	7.6	69.5	22.0	0.9	0.0	18.8
	2009 <sup>a</sup>	220	0.0	17.3	16.4	65.0	1.4	0.0	52.3
	2010 <sup>a</sup>	90	0.0	33.0	53.2	12.8	0.0	0.0	19.1
	2011 <sup>a</sup>	236	0.0	16.9	56.8	25.8	0.4	0.0	25.8
Average <sup>f</sup> (1986-2010)			0.1	13.8	43.5	39.7	2.9	0.0	39.2
5 year avg. <sup>f</sup> (2005-2006, 2008-2010)			0.0	15.5	49.6	33.8	0.9	0.0	36.9

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Table 4.–Page 3 of 4.

Project	Year	Sample Size	Age						Female
			3 yr (1.1)	4 yr (1.2, 2.1)	5 yr (1.3, 2.2)	6 yr (1.4, 2.3)	7 yr (1.5, 2.4)	8 yr (1.6, 2.5)	
Chena River	1985 <sup>i</sup>	513	0.0	12.1	21.7	59.2	7.0	0.0	52.5
	1986 <sup>i</sup>	729	0.1	9.3	51.2	29.9	9.3	0.1	25.4
	1987 <sup>i</sup>	560	0.0	2.9	13.1	75.6	8.4	0.0	58.0
	1988 <sup>i</sup>	468	0.6	10.5	17.5	46.4	24.6	0.4	60.9
	1989 <sup>i</sup>	288	0.3	4.2	30.2	54.9	10.4	0.0	64.9
	1990 <sup>i</sup>	522	0.0	23.8	25.7	46.7	3.8	0.0	46.2
	1991 <sup>i</sup>	337	0.0	8.3	55.8	28.5	7.4	0.0	31.5
	1992 <sup>i</sup>	464	1.9	40.7	16.4	40.5	0.4	0.0	37.7
	1993 <sup>b</sup>	187	0.5	29.4	41.2	27.8	1.1	0.0	16.6
	1994 <sup>b</sup>	512	0.0	2.9	43.6	51.2	2.3	0.0	45.1
	1995 <sup>b</sup>	464	0.0	4.4	20.9	70.9	3.8	0.0	66.0
	1996 <sup>b</sup>	514	2.1	6.2	44.2	23.5	23.9	0.0	44.0
	1997 <sup>b</sup>	702	0.3	37.2	13.4	48.0	1.1	0.0	39.6
	1998 <sup>b</sup>	228	0.0	4.4	72.4	18.4	4.8	0.0	41.2
	1999 <sup>b</sup>	318	0.9	7.9	25.2	65.4	0.6	0.0	58.8
	2000 <sup>b</sup>	149	0.0	20.1	35.6	35.6	8.7	0.0	34.9
	2001 <sup>b</sup>	521	0.6	9.6	33.6	51.2	5.0	0.0	44.0
	2002 <sup>b</sup>	373	0.1	29.0	29.8	38.5	2.7	0.0	31.7
	2003 <sup>b</sup>	370	0.0	5.1	46.5	41.6	6.8	0.0	44.9
	2004 <sup>b</sup>	158	0.0	8.9	17.7	71.5	1.9	0.0	66.5
	2005 <sup>b</sup>	553	0.0	6.5	49.9	39.5	4.1	0.0	42.4
	2006 <sup>b</sup>	362	0.0	12.7	45.6	40.6	1.1	0.0	45.9
	2007 <sup>b, g</sup>	53	–	–	–	–	–	–	–
	2008 <sup>b, g</sup>	36	0.0	27.8	61.1	11.1	0.0	0.0	44.4
	2009 <sup>b</sup>	442	0.0	14.5	17.0	67.8	0.7	0.0	55.1
	2010 <sup>b</sup>	80	0.0	13.6	51.9	32.1	2.5	0.0	30.9
	2011 <sup>b</sup>	425	0.2	22.6	46.8	28.7	1.6	0.0	31.8
Average <sup>f</sup> (1985-2010)			0.3	13.5	34.2	46.1	5.9	0.0	45.2
5 year avg <sup>f</sup> (2004-2006, 2009-2010)			0.0	11.2	36.4	50.3	2.0	0.0	48.2

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Table 4.–Page 4 of 4.

Project	Year	Sample Size	Age						Female
			3 yr (1.1)	4 yr (1.2, 2.1)	5 yr (1.3, 2.2)	6 yr (1.4, 2.3)	7 yr (1.5, 2.4)	8 yr (1.6, 2.5)	
Salcha River	1985 <sup>i</sup>	511	0.0	12.3	17.6	64.8	5.3	0.0	48.5
	1986 <sup>i</sup>	586	0.2	11.8	43.7	29.5	14.8	0.0	35.8
	1987 <sup>i</sup>	551	0.2	6.0	12.6	73.5	7.8	0.0	62.8
	1988 <sup>i</sup>	497	0.4	20.3	22.5	42.1	14.7	0.0	39.6
	1989 <sup>i</sup>	222	0.5	4.1	28.9	57.8	8.8	0.0	62.2
	1990 <sup>i</sup>	498	0.2	17.6	24.9	48.9	8.3	0.0	48.9
	1991 <sup>i</sup>	515	0.2	8.2	44.3	41.4	5.8	0.2	47.2
	1992 <sup>i</sup>	646	1.2	30.8	28.6	38.2	1.1	0.0	34.4
	1993 <sup>b</sup>	453	0.9	28.0	39.1	31.1	0.9	0.0	27.6
	1994 <sup>b</sup>	524	0.6	2.7	39.1	52.9	4.8	0.0	44.5
	1995 <sup>b</sup>	646	0.0	13.6	20.6	62.8	3.1	0.0	56.0
	1996 <sup>b</sup>	406	2.7	6.2	38.4	28.6	24.1	0.0	50.8
	1997 <sup>b</sup>	180	0.0	14.4	14.4	69.4	1.7	0.0	50.0
	1998 <sup>b</sup>	352	2.4	4.9	72.4	17.9	2.4	0.0	30.0
	1999 <sup>b</sup>	307	0.0	9.1	24.1	66.4	0.3	0.0	54.7
	2000 <sup>b, g</sup>	41	0.0	22.0	48.8	24.4	4.9	0.0	43.9
	2001 <sup>b</sup>	192	0.5	10.4	33.9	52.1	3.1	0.0	37.5
	2002 <sup>b</sup>	282	0.0	36.2	13.8	38.7	11.3	0.0	34.8
	2003 <sup>b</sup>	151	0.7	7.3	42.4	42.4	7.3	0.0	42.4
	2004 <sup>b</sup>	229	0.0	9.2	8.3	81.7	0.9	0.0	62.9
	2005 <sup>b</sup>	602	0.0	9.3	41.5	46.2	3.0	0.0	54.3
	2006 <sup>b</sup>	509	0.0	5.7	49.3	43.0	2.0	0.0	43.4
	2007 <sup>b</sup>	308	0.0	22.4	26.9	50.3	0.3	0.0	35.7
	2008 <sup>b</sup>	303	0.7	9.9	51.8	36.0	1.7	0.0	39.3
	2009 <sup>b</sup>	458	0.0	31.7	21.4	46.7	0.2	0.0	39.1
	2010 <sup>b</sup>	410	0.5	25.5	58.0	14.8	1.2	0.0	30.3
	2011 <sup>b</sup>	527	0.2	14.6	35.5	48.2	1.5	0.0	42.1
Average <sup>f</sup> (1985-2010)			0.5	14.3	32.7	47.1	5.4	0.0	44.5
5 year avg <sup>f</sup> (2006-2010)			0.2	19.0	41.5	38.2	1.1	0.0	37.6

<sup>a</sup> Project was operated as sonar.

<sup>b</sup> Project was operated as a counting tower.

<sup>c</sup> Project was operated as weir.

<sup>d</sup> Sampling dates may not represent run, 2001 East Fork Andreafsky River is not included in average.

<sup>e</sup> Percent female data not available.

<sup>f</sup> Averages were not weighted by number of fish sampled each year.

<sup>g</sup> Small sample size, not included in average.

<sup>h</sup> Chinook salmon samples were not collected.

<sup>i</sup> Samples were from mark-recapture project.

Table 5.—Yukon River Chinook salmon mean lengths (mm) by sex, project, gear, and age, 2011.

Sex	Project Location	Project Type and (Gear)	Brood Year (Age)										
			2008	2007		2006		2005		2004		2003	
			(1.1)	(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)
Male	District 1 <sup>a</sup>	Com ( ≤6" GN)	—	577	—	686	630	813	654	970	700	—	—
	District 2 <sup>a,b</sup>	Com ( ≤6" GN)	—	566	—	675	—	767	—	—	—	—	—
	District 1, Alakanuk	Sub (DGN, SGN)	—	576	—	727	—	811	—	—	—	—	—
	District 1, Emmonak	Sub (DGN, SGN)	—	594	—	704	—	806	—	—	—	—	—
	District 2, St. Mary's	Sub (DGN)	—	569	—	708	675	824	756	—	833	—	—
	District 3, Subdistrict 4-A, Anvik	Sub (DGN,SGN)	—	—	—	724	—	808	710	—	834	—	—
	Subdistrict 4-A, Kaltag	Sub (7.5" DGN)	—	589	—	724	—	831	750	933	900	—	—
	Subdistrict 4-A, Nulato	Sub (7.5" DGN, SGN)	—	500	—	723	—	814	—	—	—	—	—
	Huslia	Sub (7.5" SGN)	—	—	—	727	—	794	—	—	—	—	—
	Subdistricts 4-A, 4-B, 4-C Galena	Sub (DGN, SGN, FW)	—	584	—	715	—	801	770	—	858	—	—
	Subdistrict 4-B, 4-C Ruby	Sub (SGN, FW)	—	590	—	705	—	793	—	—	—	—	—
	Subdistrict 5-B, Tanana	Sub (FW)	—	555	—	704	480	861	740	950	875	—	—
	Subdistrict 5-B, Rampart Rapids <sup>c</sup>	Sub (SGN, FW)	—	—	—	—	—	—	—	—	—	—	—
	Subdistrict 5-C, Hess Creek	Sub (7.5" SGN)	—	550	—	704	—	842	720	955	856	—	—
	Subdistrict 5-D, Fort Yukon	Sub (7.5" SGN)	—	577	—	708	—	875	—	—	—	—	—
	Subdistrict 5-D, Eagle	Sub (SGN, FW)	—	571	—	695	660	818	686	840	798	—	—
	Dall Point	TF (8.25" DGN)	—	—	—	775	—	—	—	—	—	—	—
	Big Eddy	TF (8.25" DGN)	—	565	—	743	—	843	670	—	808	—	—
	Big Eddy	TF (8.5" SGN)	—	557	—	731	—	823	—	950	792	—	—
	Middle Mouth	TF (8.5" SGN)	—	588	—	761	—	847	768	1,005	824	—	—
	Mountain Village	TF (7.5" DGN)	—	640	—	722	—	823	695	—	763	—	—
	Pilot Station	TF (DGN)	373	559	—	703	—	831	719	915	803	—	—
	Eagle Sonar	TF (DGN)	—	584	—	707	—	862	710	895	847	—	—
	Andreafsky, E.F.	Esc (WR)	—	522	—	676	—	810	635	—	—	—	—
	Andreafsky, E.F.	Esc (CR)	—	548	—	706	—	793	—	—	—	—	—
	Anvik	Esc (SN)	—	510	—	745	—	—	—	—	—	—	—
	Anvik	Esc (CR)	—	554	—	702	—	794	—	—	—	—	—
	Chena	Esc (CR)	335	559	—	701	600	845	—	—	705	—	—
	Gisasa	Esc (WR)	—	531	385	687	645	815	667	—	—	—	910
	Henshaw	Esc (WR)	515	526	—	697	—	834	—	—	—	—	—
	Salcha	Esc (CR)	360	548	—	687	—	831	662	940	—	—	—
	Pilot Station	Tag (DGN)	—	—	—	749	—	834	—	847	—	—	—
Average Male Mean Length <sup>d</sup>			396	563	385	714	615	822	707	927	813	—	910
SE <sup>d</sup>			41	6	—	4	29	4	11	15	15	—	—

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Table 5.–Page 2 of 3.

Sex	Project Location	Project Type and (Gear)	Brood Year (Age)										
			2008	2007		2006		2005		2004		2003	
			(1.1)	(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)
Female	District 1 <sup>a</sup>	Com ( ≤6" GN)	–	–	–	776	–	839	–	–	772	–	–
	District 2 <sup>a, b</sup>	Com ( ≤6" GN)	–	–	–	–	–	848	–	–	–	–	–
	District 1, Alakanuk	Sub (DGN, SGN)	–	–	–	833	–	856	–	–	–	–	–
	District 1, Emmonak	Sub (DGN, SGN)	–	–	–	810	–	846	–	–	–	–	–
	District 2, St. Mary's	Sub (DGN)	–	–	–	768	–	847	–	874	869	–	–
	District 3, Subdistrict 4-A, Anvik	Sub (DGN,SGN)	–	–	–	746	–	841	747	870	818	–	–
	Subdistrict 4-A, Kaltag	Sub (7.5" DGN)	–	–	–	803	–	861	770	–	877	–	–
	Subdistrict 4-A, Nulato	Sub (7.5" DGN, SGN)	–	–	–	747	–	864	–	905	–	–	–
	Huslia	Sub (7.5" SGN)	–	–	–	743	–	879	–	890	–	–	–
	Subdistrict 4-A, 4-B, 4-C Galena	Sub (DGN, SGN, FW)	–	–	–	760	–	851	760	–	–	–	–
	Subdistrict 4-B, 4-C Ruby	Sub (SGN, FW)	–	650	–	730	–	870	–	–	–	–	–
	Subdistrict 5-B, Tanana	Sub (FW)	–	586	–	719	–	847	690	930	830	–	–
	Subdistrict 5-B, Rampart Rapids <sup>c</sup>	Sub (SGN, FW)	–	–	–	–	–	–	–	–	–	–	–
	Subdistrict 5-C, Hess Creek	Sub (7.5" SGN)	–	–	–	784	–	867	–	–	859	–	–
	Subdistrict 5-D, Fort Yukon	Sub (7.5" SGN)	–	–	–	690	–	880	–	–	890	–	–
	Subdistrict 5-D, Eagle	Sub (SGN, FW)	–	–	–	760	–	864	–	865	825	–	–
	Dall Point	TF (8.25" DGN)	–	–	–	–	–	855	–	–	–	–	–
	Big Eddy	TF (8.25" DGN)	–	–	–	767	–	853	–	905	824	–	–
	Big Eddy	TF (8.5" SGN)	–	–	–	788	–	856	770	898	814	–	–
	Middle Mouth	TF (8.5" SGN)	–	–	–	810	–	873	–	892	857	–	940
	Mountain Village	TF (7.5" DGN)	–	580	–	779	–	858	–	–	823	–	–
	Pilot Station	TF (DGN)	–	554	–	743	–	846	–	919	841	–	–
	Eagle Sonar	TF (DGN)	–	575	–	722	–	864	650	871	839	–	–
	Andreafsky, E.F.	Esc (WR)	–	518	–	732	–	827	–	900	–	–	–
	Andreafsky, E.F.	Esc (CR)	–	–	–	–	–	808	–	–	–	–	–
	Anvik	Esc (SN)	–	–	–	760	–	860	–	–	–	–	–
	Anvik	Esc (CR)	–	–	–	765	–	832	–	–	840	–	–
	Chena	Esc (CR)	–	–	–	735	–	850	–	849	853	–	–
	Gisasa	Esc (WR)	–	562	–	762	–	842	–	910	–	–	–
	Henshaw	Esc (WR)	–	472	–	739	–	849	700	905	840	–	–
	Salcha	Esc (CR)	–	–	–	775	–	848	–	871	–	–	–
	Pilot Station	Tag (DGN)	–	–	–	752	–	888	–	–	874	–	–
Average Female Mean Length <sup>d</sup>			–	562	–	761	–	854	727	891	841	–	940
SE <sup>d</sup>			–	18	–	6	–	3	18	6	7	–	–

-continued-

Table 5.–Page 3 of 3.

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*Note:* Com is commercial, Sub is subsistence, TF is test fishery, Esc is escapement, Tag is acoustic tagging, GN is gillnet preceded by mesh size, SGN is set gillnet, DGN is drift gillnet, FW is fish wheel, WR is weir, SN is seine net, and CR is carcass.

- <sup>a</sup> Incidental harvest from the summer chum salmon commercial fishery.
- <sup>b</sup> Only fish from Periods 1, 2, and 5 were sampled. Not representative of entire harvest.
- <sup>c</sup> Project only collected length and sex data.
- <sup>d</sup> Calculated from the actual number of fish sampled at all projects combined.

Table 6.—Yukon River chum salmon age and female percentages from commercial, subsistence, test fishery, and escapement projects, 2011.

Project Type Location and (gear)	Sample Size	Age					Female
		0.2	0.3	0.4	0.5	0.6	
Commercial - Summer Chum							
District 1 ( $\leq 6''$ gillnet)	1,728	0.1	50.2	49.1	0.6	0.0	38.8
District 2 ( $\leq 6''$ gillnet) <sup>a</sup>	157	0.1	54.7	44.3	1.0	0.0	41.2
District 6 (fish wheel)	366	0.8	47.1	52.1	0.0	0.0	36.7
Commercial Summer Chum Average <sup>b</sup>		0.3	50.7	48.5	0.5	0.0	38.9
Commercial - Fall Chum							
District 1 (gillnet)	1,273	1.6	72.8	25.5	0.0	0.0	48.5
District 2 (gillnet)	547	0.5	72.5	26.6	0.4	0.0	46.3
Subdistrict 5-B, 5-C (fish wheel)	113	4.4	53.1	42.5	0.0	0.0	53.1
Commercial Fall Chum Average <sup>b</sup>		2.2	66.1	31.5	0.1	0.0	49.3
Subsistence - Fall Chum							
Subdistrict 5-A, Tanana (fish wheel)	293	6.1	85.7	8.2	0.0	0.0	54.3
Test Fishery - Summer Chum							
Dall Point	205	0.0	56.6	42.9	0.5	0.0	21.0
Big Eddy (5.5" drift gillnet)	758	0.0	47.9	51.6	0.5	0.0	62.8
Middle Mouth (5.5" drift gillnet)	735	0.1	40.1	59.5	0.3	0.0	63.7
Test Fishery Summer Chum Average <sup>b</sup>		0.0	48.2	51.3	0.4	0.0	49.1
Test Fishery - Fall Chum							
Big Eddy (6.0" drift gillnet)	420	1.0	68.1	30.5	0.5	0.0	58.8
Middle Mouth (6.0" drift gillnet)	872	1.3	70.6	27.9	0.2	0.0	56.7
Mountain Village (5 $\frac{7}{8}$ " drift gillnet)	267	0.7	76.4	22.5	0.4	0.0	49.4
Eagle Sonar (5.25" and 7.5" mesh drift gillnet)	617	1.1	67.1	31.6	0.2	0.0	40.8
Test Fishery Fall Chum Average <sup>b</sup>		1.0	70.6	28.1	0.3	0.0	51.4
Escapement - Summer Chum							
Andreafsky River, East Fork (weir trap)	944	0.4	36.0	63.4	0.2	0.0	42.1
Anvik River (beach seine)	509	0.4	49.2	49.7	0.7	0.0	52.5
Gisasa River (weir trap)	846	1.4	54.8	43.7	0.1	0.0	55.3
Henshaw Creek (weir trap)	580	2.4	44.2	53.4	0.0	0.0	61.2
Escapement Summer Chum Average <sup>b</sup>		1.1	46.1	52.5	0.3	0.0	52.8
Total Summer Chum	6,828						
Total Fall Chum	4,402						

<sup>a</sup> Only fish harvested in Period 1 sampled. Age and sex composition estimate based on District 1 proportions.

<sup>b</sup> Averages were not weighted by sample sizes.

Table 7.—Yukon River summer and fall chum salmon commercial harvest age and sex composition by district, 2011.

Season District	Sample Size		Brood Year (Age)										Total	
			2008 (0.2)		2007 (0.3)		2006 (0.4)		2005 (0.5)		2004 (0.6)			
			No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Summer Chum Salmon														
District 1 <sup>a</sup>	1,728	Male	119	0.1	51,757	31.7	47,114	28.8	969	0.6	0	0.0	99,958	61.2
		Female	54	0.0	30,249	18.5	33,133	20.3	45	0.0	0	0.0	63,481	38.8
		Total	173	0.1	82,006	50.2	80,247	49.1	1,013	0.6	0	0.0	163,439	100.0
District 2 <sup>a,b</sup>	157	Male	91	0.1	34,435	33.4	25,434	24.7	694	0.7	0	0.0	60,654	58.8
		Female	15	0.0	21,905	21.3	20,195	19.6	302	0.3	0	0.0	42,417	41.2
		Total	106	0.1	56,340	54.7	45,629	44.3	996	1.0	0	0.0	103,071	100.0
District 6 <sup>c</sup>	366	Male	39	0.4	2,651	30.6	2,783	32.2	0	0.0	0	0.0	5,473	63.3
		Female	27	0.3	1,422	16.4	1,728	20.0	0	0.0	0	0.0	3,178	36.7
		Total	66	0.8	4,074	47.1	4,511	52.1	0	0.0	0	0.0	8,651	100.0
Fall Chum Salmon														
District 1 <sup>d</sup>	1,273	Male	655	0.5	47,068	36.8	17,838	14.0	218	0.2	0	0.0	65,778	51.5
		Female	1,327	1.0	45,927	36.0	14,703	11.5	0	0.0	0	0.0	61,957	48.5
		Total	1,982	1.6	92,995	72.8	32,540	25.5	218	0.2	0	0.0	127,735	100.0
District 2 <sup>e</sup>	547	Male	268	0.3	38,528	38.2	14,893	14.8	390	0.4	0	0.0	54,079	53.7
		Female	198	0.2	34,514	34.3	11,940	11.9	0	0.0	0	0.0	46,652	46.3
		Total	465	0.5	73,042	72.5	26,834	26.6	390	0.4	0	0.0	100,731	100.0
Subdistricts 5-B & 5-C <sup>c</sup>	113	Male	0	0.0	298	23.9	287	23.0	0	0.0	0	0.0	584	46.9
		Female	55	4.4	364	29.2	243	19.5	0	0.0	0	0.0	662	53.1
		Total	55	4.4	662	53.1	529	42.5	0	0.0	0	0.0	1,246	100.0

<sup>a</sup> All commercial fishing periods were restricted to 6.0 in or smaller mesh gillnets.

<sup>b</sup> Only fish harvested in Period 1 sampled. Age and sex composition estimate based on District 1 proportions.

<sup>c</sup> Commercial fishing gear was fish wheels.

<sup>d</sup> Commercial fishing gear was restricted to 6.0 in or smaller mesh gillnets in Periods 1–3. Unrestricted mesh gillnets in Periods 4–16

<sup>e</sup> Commercial fishing gear was unrestricted mesh size gillnets.



Table 8.—Summer chum salmon age and female percentages from the Lower Yukon River test fishery (combined Big Eddy and Middle Mouth sites) 5.5 in mesh gillnet, 1985–2011.

Year	Sample Size	Number of Days	Percent (%)					Female
			Age					
			0.2	0.3	0.4	0.5	0.6	
1985	954	19	0.0	62.4	37.1	0.5	0.0	51.6
1986	1,125	27	0.1	26.2	73.2	0.4	0.0	55.1
1987	1,169	34	0.6	48.8	43.7	6.8	0.0	56.8
1988	804	30	0.1	50.5	48.4	1.0	0.0	59.5
1989	1,074	29	0.0	39.9	59.5	0.6	0.0	62.2
1990	1,328	42	0.8	46.1	50.1	3.1	0.0	66.0
1991	1,495	41	0.0	45.4	53.6	0.9	0.0	55.2
1992	1,089	32	0.0	22.0	71.8	6.2	0.0	61.4
1993	1,757	46	0.1	38.2	57.4	4.4	0.0	50.4
1994	2,385	49	0.0	35.6	61.9	2.6	0.0	62.5
1995	1,839	38	0.5	40.2	53.2	6.1	0.0	56.2
1996	1,936	47	0.1	42.3	52.4	5.2	0.0	63.7
1997	1,947	46	0.0	24.1	71.5	4.4	0.0	61.0
1998	1,649	47	0.0	62.5	33.5	4.0	0.0	52.5
1999	1,227	33	1.1	48.1	47.4	3.4	0.0	50.0
2000	950	38	0.2	52.5	45.8	1.5	0.0	63.8
2001	724	33	0.0	25.0	73.8	1.2	0.0	64.6
2002	792	45	0.5	57.3	40.4	1.8	0.0	63.3
2003	822	42	0.4	78.7	18.7	2.2	0.0	54.4
2004	521	45	3.1	40.1	56.8	0.0	0.0	66.0
2005	754	32	0.1	89.8	9.9	0.1	0.0	54.5
2006	860	30	0.3	27.3	72.2	0.1	0.0	59.0
2007 <sup>a</sup>	91	16	0.0	42.9	47.3	9.9	0.0	65.9
2008 <sup>b</sup>	784	24	0.0	41.2	53.7	5.1	0.0	55.4
2009	1,042	33	1.2	48.8	47.9	1.8	0.2	54.3
2010	1,211	31	4.0	64.7	29.8	1.5	0.0	56.6
2011	1,493	41	0.1	44.1	55.5	0.4	0.0	63.2
Average <sup>c</sup> (1987-1988, 1990-2006, 2009-2010)			0.6	47.0	49.5	2.8	0.0	58.6
5-yr average <sup>c</sup> (2004-2006, 2009-2010)			1.8	54.2	43.3	0.7	0.0	58.1

*Note:* The Lower Yukon River test fishery was conducted from the end of May through July 15. Prior to 1990 this project was often discontinuous within the season or was not conducted throughout the season. The “Number of Days” refers only to those days that scale samples were collected from summer chum salmon and aged.

<sup>a</sup> One set gillnet was operated at Big Eddy only.

<sup>b</sup> There were 2 drift gillnets operated at Big Eddy and 1 drift gillnet at Middle Mouth.

<sup>c</sup> Years used for average only include years when samples were collected throughout the season and include samples with a 30-day season minimum. Average was not weighted by number of fish sampled each year.

Table 9.—Yukon River summer and fall chum salmon mean lengths (mm) by sex, project, gear, and age, 2011.

Sex and Season	Project Location	Project Type and (Gear)	Brood Year (Age)				
			2008 (0.2)	2007 (0.3)	2006 (0.4)	2005 (0.5)	2004 (0.6)
Male Summer Chum							
	District 1	Com (≤6" GN)	553	575	584	579	—
	District 2 <sup>a</sup>	Com (≤6" GN)	—	592	589	640	—
	District 6	Com (FW)	561	590	601	—	—
	Dall Point	TF (5.5" DGN)	—	586	604	590	—
	Big Eddy	TF (5.5" DGN)	—	573	584	585	—
	Middle Mouth	TF (5.5" DGN)	—	578	584	—	—
	Andreafsky, E.F.	Esc (WR)	559	561	577	542	—
	Anvik	Esc (SN)	—	580	596	606	—
	Gisasa	Esc (WR)	559	566	578	600	—
	Henshaw Creek	Esc (WR)	540	564	566	—	—
Male Summer Chum Average <sup>b</sup>			554	577	586	592	—
Female Summer Chum							
	District 1	Com (≤6" GN)	550	561	568	555	—
	District 2 <sup>a</sup>	Com (≤6" GN)	—	572	573	580	—
	District 6	Com (FW)	560	572	583	—	—
	Dall Point	TF (5.5" DGN)	—	560	571	—	—
	Big Eddy	TF (5.5" DGN)	—	555	560	573	—
	Middle Mouth	TF (5.5" DGN)	540	562	564	573	—
	Andreafsky, E.F.	Esc (WR)	—	537	540	—	—
	Anvik	Esc (SN)	501	541	551	—	—
	Gisasa	Esc (WR)	519	540	547	—	—
	Henshaw Creek	Esc (WR)	533	542	551	—	—
Female Summer Chum Average <sup>b</sup>			534	554	561	570	—

-continued-

Table 9.–Page 2 of 2.

Sex and Season	Project Location	Project Type and (Gear)	Brood Year (Age)				
			2007 (0.2)	2006 (0.3)	2005 (0.4)	2004 (0.5)	2003 (0.6)
Male Fall Chum							
	District 1	Com (GN)	559	581	590	595	–
	District 2	Com (GN)	550	589	601	609	–
	Subdistricts 5–B, 5–C	Com (FW)	–	612	615	–	–
	Subdistrict 5–A	Sub (FW)	560	597	619	–	–
	Big Eddy	TF (6.0" DGN)	538	593	608	615	–
	Middle Mouth	TF (6.0" DGN)	563	597	604	613	–
	Mt. Village	TF (5 7⁄8" DGN)	540	593	602	630	–
	Eagle Sonar	TF (DGN)	609	607	622	640	–
	Male Fall Chum Average <sup>b</sup>		560	596	608	617	–
Female Fall Chum							
	District 1	Com (GN)	544	565	580	–	–
	District 2	Com (GN)	545	577	582	–	–
	Subdistricts 5–B, 5–C	Com (FW)	553	593	594	–	–
	Subdistrict 5–A	Sub (FW)	570	584	590	–	–
	Big Eddy	TF (6.0" DGN)	573	581	591	595	–
	Middle Mouth	TF (6.0" DGN)	567	585	589	–	–
	Mt. Village	TF (5 7⁄8" DGN)	605	582	582	–	–
	Eagle Sonar	TF (DGN)	520	580	589	–	–
	Female Fall Chum Average <sup>b</sup>		560	581	587	595	–

*Note:* Com is commercial, Sub is subsistence, TF is test fishery, Esc is escapement, GN is gillnet (preceded by mesh size), DGN is drift gillnet, FW is fish wheel, WR is weir, SN is seine net, and CR is carcass.

<sup>a</sup> Only fish harvested in Period 1 sampled. Not representative of entire harvest.

<sup>b</sup> Average was not weighted by number of fish sampled in each project.

Table 10.—Yukon River coho salmon age and female percentages from the commercial and test fishery projects, 2011.

Project Type	Sample Size	Age			Female
Location (gear)		(1.1)	(2.1)	(3.1)	
Commercial Fishery					
District 1 (gillnet) <sup>a</sup>	579	19.6	76.2	4.3	50.2
District 2 (gillnet) <sup>b</sup>	195	19.5	77.4	3.1	43.6
Commercial Fishery Average <sup>c</sup>		19.6	76.8	3.7	46.9
Test Fishery					
Big Eddy (6.0" drift gillnet)	210	28.1	68.6	3.3	50.5
Middle Mouth (6.0" drift gillnet)	206	22.8	71.8	5.3	55.3
Mountain Village (5 7/8" drift gillnet)	49	36.7	63.3	0.0	49.0
Test Fishery Average <sup>c</sup>		29.2	67.9	2.9	51.6
Total		1,239			

<sup>a</sup> Commercial fishing gear was restricted to 6.0 in or smaller mesh size gillnets for Periods 1–3 and was unrestricted mesh size gillnets for Periods 4–16.

<sup>b</sup> Commercial fishing gear was unrestricted mesh size gillnets for all periods.

<sup>c</sup> Averages are not weighted by sample size.

Table 11.—Yukon River coho salmon mean lengths (mm) by sex, project, gear, and age, 2011.

Sex	Project Location	Project Type and (Gear)	Brood Year (Age)		
			2008 (1.1)	2007 (2.1)	2006 (3.1)
Male	District 1 <sup>a</sup>	Com (GN)	561	565	572
	District 2 <sup>b</sup>	Com (GN)	570	561	553
	Big Eddy	TF (6.0" DGN)	568	576	625
	Middle Mouth	TF (6.0" DGN)	581	573	575
	Mt. Village	TF (5 7/8" DGN)	571	564	—
	Male Average <sup>c</sup>		570	568	581
Female	District 1 <sup>a</sup>	Com (GN)	566	563	573
	District 2 <sup>b</sup>	Com (GN)	556	562	533
	Big Eddy	TF (6.0" DGN)	581	573	578
	Middle Mouth	TF (6.0" DGN)	584	578	576
	Mt. Village	TF (5 7/8" DGN)	568	570	—
	Female Average <sup>c</sup>		571	569	565

<sup>a</sup> Commercial fishing gear was restricted to 6.0 in or smaller mesh for Periods 1–3, and was unrestricted in Periods 4–16.

<sup>b</sup> Commercial fishing gear was unrestricted mesh size gillnets for all periods.

<sup>c</sup> Averages were not weighted by sample size.

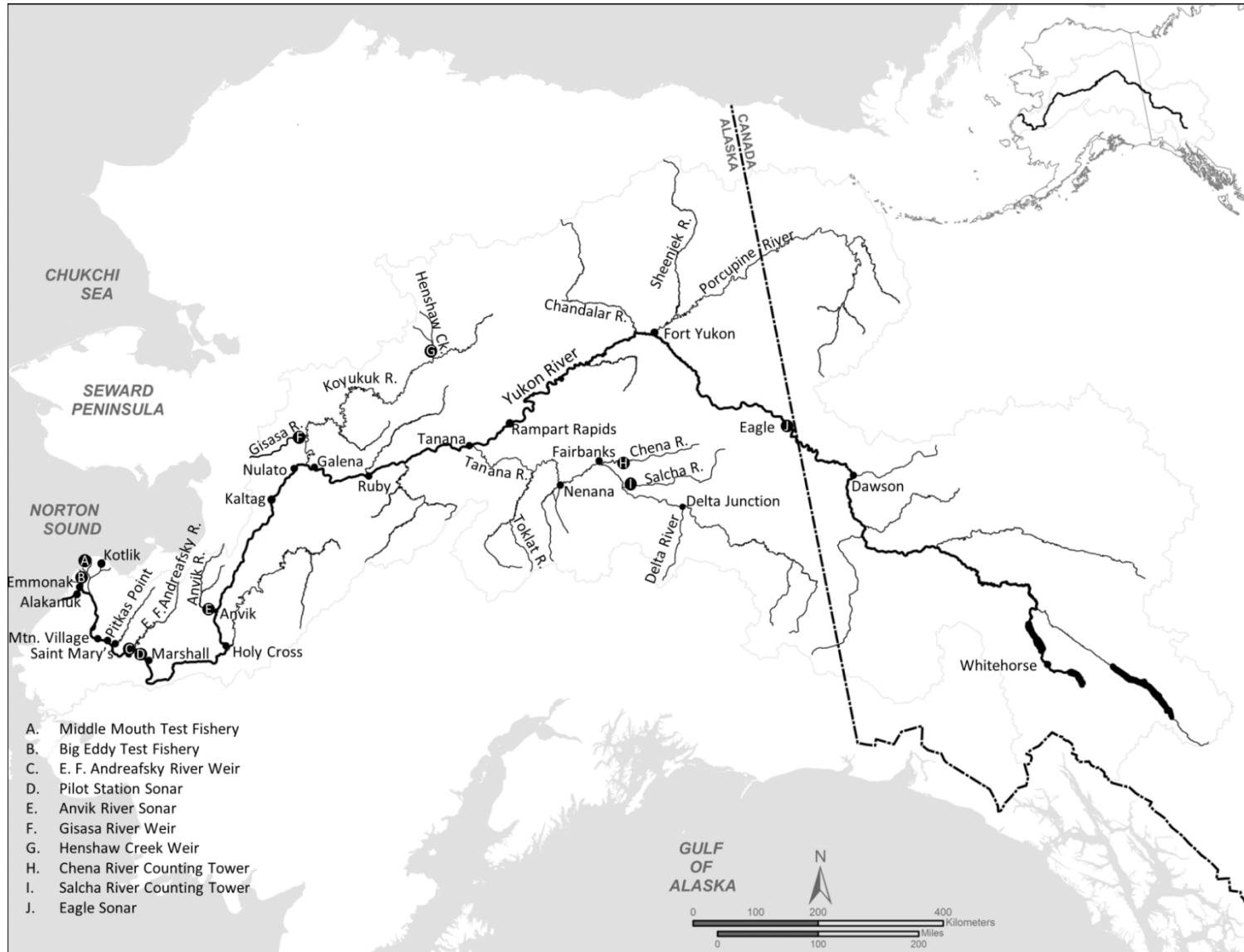


Figure 1.—Yukon River drainage in Alaska and Canada.

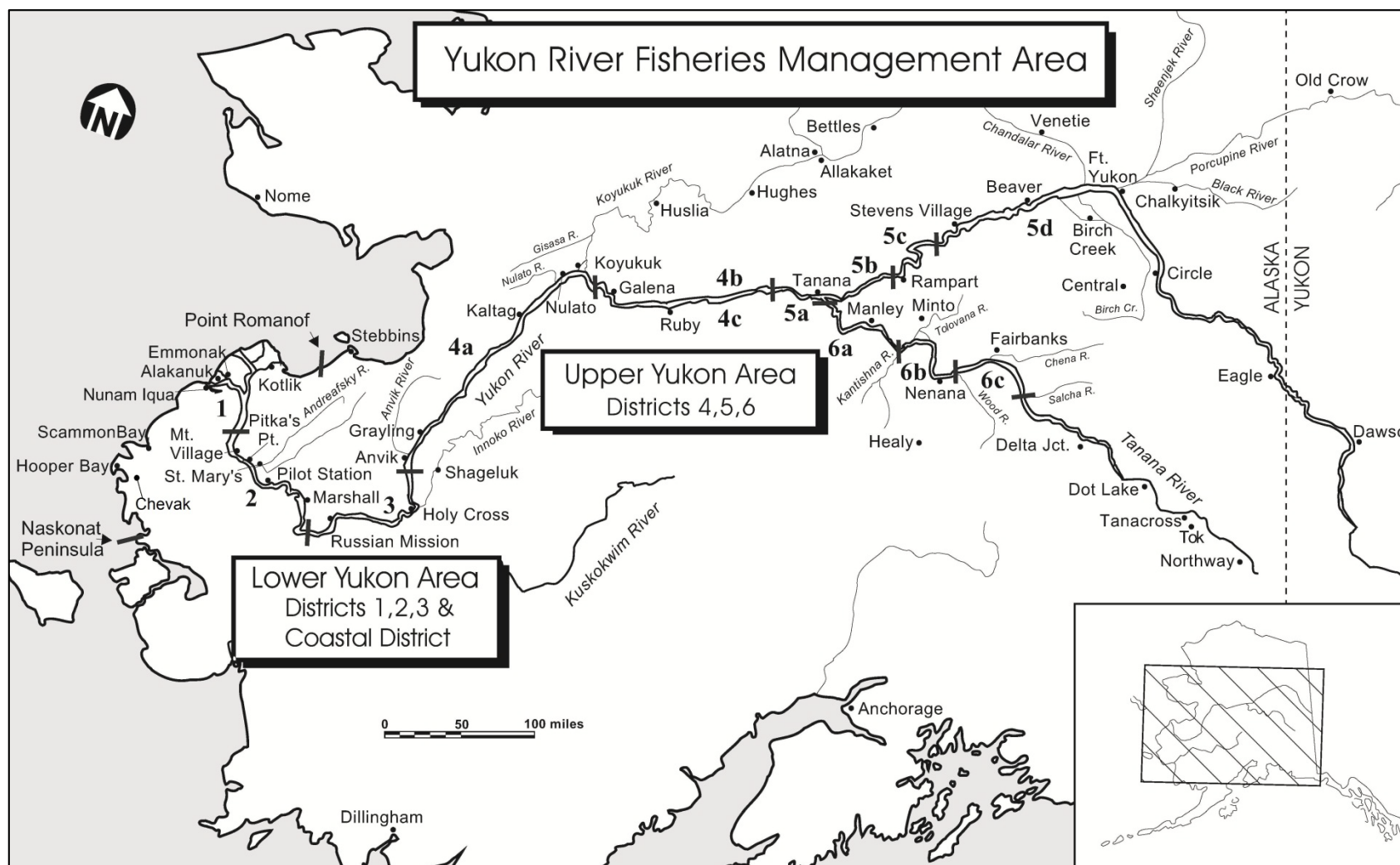


Figure 2.—Yukon River district and subdistrict map.

## **APPENDIX A: CHINOOK SALMON**

Appendix A1.—Yukon River District 1 Chinook salmon incidental commercial gillnet harvest, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)																Total					
			2008		2007				2006				2005				2004				2003			
			(1.1)		(1.2)	(2.1)			(1.3)	(2.2)			(1.4)	(2.3)			(1.5)	(2.4)			(1.6)	(2.5)	N	%
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
6/24 Period 1	108	Male	0	0.0	160	30.6	0	0.0	198	38.0	5	0.9	58	11.1	0	0.0	5	0.9	0	0.0	0	0.0	425	81.5
		Female	0	0.0	0	0.0	0	0.0	29	5.6	0	0.0	63	12.0	0	0.0	0	0.0	5	0.9	0	0.0	97	18.5
		Subtotal	0	0.0	160	30.6	0	0.0	227	43.5	5	0.9	121	23.1	0	0.0	5	0.9	5	0.9	0	0.0	522	100.0
		Male Mean Length	—		575	—			664	630			856	—			970	—			—			
		SE	—		8	—			10	—			18	—			—	—			—	—		
		Range	—		480–700	—			520–830	—			725–920	—			—	—			—	—		
		n	—		33	—			41	1			12	—			1	—			—	—		
		Female Mean Length	—		—	—			773	—			843	—			—	775	—		—	—		
		SE	—		—	—			32	—			21	—			—	—			—	—		
		Range	—		—	—			715–920	—			710–985	—			—	—			—	—		
		n	—		—	—			6	—			13	—			—	1	—		—	—		
6/27 Period 2	150	Male	0	0.0	177	27.3	0	0.0	281	43.3	0	0.0	39	6.0	4	0.7	0	0.0	0	0.0	0	0.0	502	77.3
		Female	0	0.0	0	0.0	0	0.0	61	9.3	0	0.0	82	12.7	0	0.0	0	0.0	4	0.7	0	0.0	147	22.7
		Subtotal	0	0.0	177	27.3	0	0.0	342	52.7	0	0.0	121	18.7	4	0.7	0	0.0	4	0.7	0	0.0	649	100.0
		Male Mean Length	—		571	—			665	—			804	640			—	—			—	—		
		SE	—		6	—			8	—			28	—			—	—			—	—		
		Range	—		520–750	—			510–795	—			650–915	—			—	—			—	—		
		n	—		41	—			65	—			9	1			—	—			—	—		
		Female Mean Length	—		—	—			744	—			850	—			—	770	—		—	—		
		SE	—		—	—			12	—			10	—			—	—			—	—		
		Range	—		—	—			660–845	—			780–940	—			—	—			—	—		
		n	—		—	—			14	—			19	—			—	1	—		—	—		

-continued-



		Brood Year (Age)																								
		2008		2007				2006				2005				2004				2003						
Sample	Sample	(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total		
Dates	Size	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
6/29, 7/1	110	Male	0	0.0	194	52.7	0	0.0	103	28.2	0	0.0	27	7.3	3	0.9	0	0.0	3	0.9	0	0.0	0	0.0	330	90.0
Periods 3, 4		Female	0	0.0	0	0.0	0	0.0	17	4.5	0	0.0	20	5.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	37	10.0
		Subtotal	0	0.0	194	52.7	0	0.0	120	32.7	0	0.0	47	12.7	3	0.9	0	0.0	3	0.9	0	0.0	0	0.0	367	100.0
		Male Mean Length	–		576	–		708	–			814	680	–		700	–			–		–				
		SE	–		5	–		13	–			19	–	–		–	–			–		–				
		Range	–		510–665	–		570–855	–			740–915	–	–		–	–			–		–				
		n	–		58	–		31	–			8	1	–		1	–			–		–				
		Female Mean Length	–		–	–		800	–			802	–	–		–	–			–		–				
		SE	–		–	–		28	–			23	–	–		–	–			–		–				
		Range	–		–	–		715–855	–			710–878	–	–		–	–			–		–				
		n	–		–	–		5	–			6	–	–		–	–			–		–				
7/3, 4,	59	Male	0	0.0	253	45.8	0	0.0	103	18.6	0	0.0	65	11.9	0	0.0	9	1.7	0	0.0	0	0.0	0	0.0	430	78.0
6, 14		Female	0	0.0	0	0.0	0	0.0	28	5.1	0	0.0	94	16.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	122	22.0
Periods 5–11		Subtotal	0	0.0	253	45.8	0	0.0	131	23.7	0	0.0	159	28.8	0	0.0	9	1.7	0	0.0	0	0.0	0	0.0	552	100.0
		Male Mean Length	–		585	–		718	–			781	–	970	–		–			–		–				
		SE	–		10	–		14	–			23	–	–		–	–			–		–				
		Range	–		475–670	–		635–780	–			685–860	–	–		–	–			–		–				
		n	–		27	–		11	–			7	–	1	–	–	–			–		–				
		Female Mean Length	–		–	–		802	–			847	–	–		–	–			–		–				
		SE	–		–	–		18	–			35	–	–		–	–			–		–				
		Range	–		–	–		765–820	–			795–905	–	–		–	–			–		–				
		n	–		–	–		3	–			10	–	–		–	–			–		–				

-continued-

		Brood Year (Age)																								
		2008		2007				2006				2005				2004				2003						
Sample	Sample	(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total		
Dates	Size	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Season	427	Male	0	0.0	783	37.5	0	0.0	686	32.8	5	0.2	189	9.0	8	0.4	14	0.7	3	0.2	0	0.0	0	0.0	1,688	80.8
		Female	0	0.0	0	0.0	0	0.0	134	6.4	0	0.0	259	12.4	0	0.0	0	0.0	9	0.4	0	0.0	0	0.0	402	19.2
		Total	0	0.0	783	37.5	0	0.0	820	39.2	5	0.2	448	21.4	8	0.4	14	0.7	12	0.6	0	0.0	0	0.0	2,090	100.0
		Male Mean Length	–		577	–		686	630		813	654		970	700		–	–								
		SE	–		4	–		5	–		12	–		–	–		–	–								
		Range	–		475–750	–		520–855	–		650–920	640–680		–	–		–	–								
		n	–		159	–		148	1		36	2		2	1		–	–								
		Female Mean Length	–		–	–		776	–		839	–		–	772		–	–								
		SE	–		–	–		11	–		12	–		–	–		–	–								
		Range	–		–	–		660–920	–		710–970	–		–	770–775		–	–								
		n	–		–	–		28	–		48	–		–	2		–	–								

*Note:* All commercial fishing periods were restricted to 6.0 in or smaller mesh gillnets.

Appendix A2.—Yukon River District 2 Chinook salmon incidental commercial gillnet harvest, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)																Total					
			2008		2007				2006				2005				2004				2003			
			(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)	
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
6/26, 28; 7/10 <sup>a</sup>	27	Male	0	0.0	11	40.7	0	0.0	10	37.0	0	0.0	1	3.7	0	0.0	0	0.0	0	0.0	0	0.0	22	81.5
Total		Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	18.5	0	0.0	0	0.0	0	0.0	0	0.0	5	18.5
		Total	0	0.0	11	40.7	0	0.0	10	37.0	0	0.0	6	22.2	0	0.0	0	0.0	0	0.0	0	0.0	27	100.0
		Male Mean Length	—		556	—		675	—			767	—			—		—		—		—		
		SE	—		6	—		14	—			—	—			—		—		—		—		
		Range	—		533–605	—		614–759	—			—	—			—		—		—		—		
		n	—		11	—		10	—			1	—			—		—		—		—		
		Female Mean Length	—		—	—		—	—			848	—			—		—		—		—		
		SE	—		—	—		—	—			20	—			—		—		—		—		
		Range	—		—	—		—	—			776–887	—			—		—		—		—		
		n	—		—	—		—	—			5	—			—		—		—		—		

Note: All commercial fishing periods were restricted to 6.0 in or smaller mesh gillnets.

<sup>a</sup> Only fish from Periods 1, 2 and 5 were sampled. Age, sex, and length composition is not representative of entire harvest.

Appendix A3.—Yukon River District 1 (Alakanuk) Chinook salmon subsistence gillnet harvest, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)																Total			
			2008		2007		2006		2005		2004		2003									
			(1.1)		(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)								
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%				
6/10, 17	8	Male	0	0.0	1	12.5	0	0.0	5	62.5	0	0.0	1	12.5	0	0.0	0	0.0	0	0.0	7	87.5
6" Mesh		Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	12.5	0	0.0	0	0.0	0	0.0	1	12.5
Drift Gillnet		Subtotal	0	0.0	1	12.5	0	0.0	5	62.5	0	0.0	2	25.0	0	0.0	0	0.0	0	0.0	8	100.0
		Male Mean Length	—		592	—		712	—		802	—		—	—		—	—		—		
		SE	—		—	—		21	—		—	—		—	—		—	—		—		
		Range	—		—	—		640–760	—		—	—		—	—		—	—		—		
		n	—		1	—		5	—		1	—		—	—		—	—		—		
		Female Mean Length	—		—	—		—	—		890	—		—	—		—	—		—		
		SE	—		—	—		—	—		—	—		—	—		—	—		—		
		Range	—		—	—		—	—		—	—		—	—		—	—		—		
		n	—		—	—		—	—		1	—		—	—		—	—		—		
6/5–6	3	Male	0	0.0	0	0.0	0	0.0	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0	0	0.0	3	100.0
6" Mesh		Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Set Gillnet		Subtotal	0	0.0	0	0.0	0	0.0	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0	0	0.0	3	100.0
		Male Mean Length	—		—	—		—	—		862	—		—	—		—	—		—		
		SE	—		—	—		—	—		34	—		—	—		—	—		—		
		Range	—		—	—		—	—		825–930	—		—	—		—	—		—		
		n	—		—	—		—	—		3	—		—	—		—	—		—		
		Female Mean Length	—		—	—		—	—		—	—		—	—		—	—		—		
		SE	—		—	—		—	—		—	—		—	—		—	—		—		
		Range	—		—	—		—	—		—	—		—	—		—	—		—		
		n	—		—	—		—	—		—	—		—	—		—	—		—		

-continued-

Sample Dates	Sample Size		Brood Year (Age)																Total					
			2008		2007		2006		2005		2004		2003											
			(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)	
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Total 6" Mesh	11	Male	0	0.0	1	9.1	0	0.0	5	45.5	0	0.0	4	36.4	0	0.0	0	0.0	0	0.0	0	0.0	10	90.9
		Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	9.1	0	0.0	0	0.0	0	0.0	0	0.0	1	9.1
		Subtotal	0	0.0	1	9.1	0	0.0	5	45.5	0	0.0	5	45.5	0	0.0	0	0.0	0	0.0	0	0.0	11	100.0
		Male Mean Length	—		592		—		712		—		847		—		—		—		—		—	
		SE	—		—		—		21		—		28		—		—		—		—		—	
		Range	—		—		—		640–760		—		802–930		—		—		—		—		—	
		n	—		1		—		5		—		4		—		—		—		—		—	
		Female Mean Length	—		—		—		—		—		890		—		—		—		—		—	
		SE	—		—		—		—		—		—		—		—		—		—		—	
		Range	—		—		—		—		—		—		—		—		—		—		—	
		n	—		—		—		—		—		1		—		—		—		—		—	
6/5 7" Mesh Set Gillnet	9	Male	0	0.0	0	0.0	0	0.0	8	88.9	0	0.0	1	11.1	0	0.0	0	0.0	0	0.0	0	0.0	9	100.0
		Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	0	0.0	0	0.0	8	88.9	0	0.0	1	11.1	0	0.0	0	0.0	0	0.0	0	0.0	9	100.0
		Male Mean Length	—		—		—		710		—		785		—		—		—		—		—	
		SE	—		—		—		11		—		—		—		—		—		—		—	
		Range	—		—		—		666–747		—		—		—		—		—		—		—	
		n	—		—		—		8		—		1		—		—		—		—		—	
		Female Mean Length	—		—		—		—		—		—		—		—		—		—		—	
		SE	—		—		—		—		—		—		—		—		—		—		—	
		Range	—		—		—		—		—		—		—		—		—		—		—	
		n	—		—		—		—		—		—		—		—		—		—		—	

-continued-

Sample Dates	Sample Size		Brood Year (Age)																Total					
			2008		2007				2006				2005				2004				2003			
			(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)	
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
6/6, 17, 21–22	33	Male	0	0.0	1	3.0	0	0.0	21	63.6	0	0.0	3	9.1	0	0.0	0	0.0	0	0.0	0	0.0	25	75.8
7.5" Mesh		Female	0	0.0	0	0.0	0	0.0	4	12.1	0	0.0	4	12.1	0	0.0	0	0.0	0	0.0	0	0.0	8	24.2
Set Gillnet		Subtotal	0	0.0	1	3.0	0	0.0	25	75.8	0	0.0	7	21.2	0	0.0	0	0.0	0	0.0	0	0.0	33	100.0
		Male Mean Length	–		560	–		738	–		770	–		–	–		–	–		–	–			
		SE	–		–	–		12	–		26	–		–	–		–	–		–	–			
		Range	–		–	–		650–870	–		720–810	–		–	–		–	–		–	–			
		n	–		1	–		21	–		3	–		–	–		–	–		–	–			
		Female Mean Length	–		–	–		833	–		848	–		–	–		–	–		–	–			
		SE	–		–	–		25	–		28	–		–	–		–	–		–	–			
		Range	–		–	–		760–871	–		800–930	–		–	–		–	–		–	–			
		n	–		–	–		4	–		4	–		–	–		–	–		–	–			
All Gear	53	Male	0	0.0	2	3.8	0	0.0	34	64.2	0	0.0	8	15.1	0	0.0	0	0.0	0	0.0	0	0.0	44	83.0
		Female	0	0.0	0	0.0	0	0.0	4	7.5	0	0.0	5	9.4	0	0.0	0	0.0	0	0.0	0	0.0	9	17.0
		Total	0	0.0	2	3.8	0	0.0	38	71.7	0	0.0	13	24.5	0	0.0	0	0.0	0	0.0	0	0.0	53	100.0
		Male Mean Length	–		576	–		727	–		811	–		–	–		–	–		–	–			
		SE	–		16	–		8	–		21	–		–	–		–	–		–	–			
		Range	–		560–592	–		640–870	–		720–930	–		–	–		–	–		–	–			
		n	–		2	–		34	–		8	–		–	–		–	–		–	–			
		Female Mean Length	–		–	–		833	–		856	–		–	–		–	–		–	–			
		SE	–		–	–		25	–		24	–		–	–		–	–		–	–			
		Range	–		–	–		760–871	–		800–930	–		–	–		–	–		–	–			
		n	–		–	–		4	–		5	–		–	–		–	–		–	–			

Appendix A4.—Yukon River District 1 (Emmonak) Chinook salmon subsistence gillnet harvest, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)																Total					
			2008		2007				2006				2005				2004				2003			
			(1.1)		(1.2)		(2.1)	(1.3)		(2.2)	(1.4)		(2.3)	(1.5)		(2.4)	(1.6)		(2.5)					
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%				
6/17 5" Mesh Set Gillnet	11	Male	0	0.0	2	18.2	0	0.0	7	63.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	9	81.8		
		Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	18.2	0	0.0	0	0.0	0	0.0	2	18.2		
		Subtotal	0	0.0	2	18.2	0	0.0	7	63.6	0	0.0	2	18.2	0	0.0	0	0.0	0	0.0	11	100.0		
		Male Mean Length	—		586	—		692	—		—	—	—	—	—	—	—	—	—	—				
		SE	—		13	—		24	—		—	—	—	—	—	—	—	—	—	—				
		Range	—		573–598	—		616–788	—		—	—	—	—	—	—	—	—	—	—				
		n	—		2	—		7	—		—	—	—	—	—	—	—	—	—	—				
		Female Mean Length	—		—	—		—	—		839	—	—	—	—	—	—	—	—	—				
		SE	—		—	—		—	—		9	—	—	—	—	—	—	—	—	—				
		Range	—		—	—		—	—		830–848	—	—	—	—	—	—	—	—	—				
		n	—		—	—		—	—		2	—	—	—	—	—	—	—	—	—				
6/18, 24 6" Mesh Drift Gillnet	3	Male	0	0.0	1	33.3	0	0.0	1	33.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	66.7		
		Female	0	0.0	0	0.0	0	0.0	1	33.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	33.3		
		Subtotal	0	0.0	1	33.3	0	0.0	2	66.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	100.0		
		Male Mean Length	—		610	—		731	—		—	—	—	—	—	—	—	—	—	—				
		SE	—		—	—		—	—		—	—	—	—	—	—	—	—	—	—				
		Range	—		—	—		—	—		—	—	—	—	—	—	—	—	—	—				
		n	—		1	—		1	—		—	—	—	—	—	—	—	—	—	—				
		Female Mean Length	—		—	—		800	—		—	—	—	—	—	—	—	—	—	—				
		SE	—		—	—		—	—		—	—	—	—	—	—	—	—	—	—				
		Range	—		—	—		—	—		—	—	—	—	—	—	—	—	—	—				
		n	—		—	—		1	—		—	—	—	—	—	—	—	—	—	—				

-continued-

Sample Dates	Sample Size		Brood Year (Age)																Total			
			2008		2007		2006		2005		2004		2003									
			(1.1)		(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)								
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%				
6/9, 13–14	2	Male	0	0.0	1	50.0	0	0.0	1	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	100.0
6" Set		Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Gillnet		Subtotal	0	0.0	1	50.0	0	0.0	1	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	100.0
Male Mean Length			–		560	–		680	–		–	–		–	–		–	–				
SE			–		–	–		–	–		–	–		–	–		–	–				
Range			–		–	–		–	–		–	–		–	–		–	–				
n			–		1	–		1	–		–	–		–	–		–	–				
Female Mean Length			–		–	–		–	–		–	–		–	–		–	–				
SE			–		–	–		–	–		–	–		–	–		–	–				
Range			–		–	–		–	–		–	–		–	–		–	–				
n			–		–	–		–	–		–	–		–	–		–	–				
Total	5	Male	0	0.0	2	40.0	0	0.0	2	40.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	80.0
6" Mesh		Female	0	0.0	0	0.0	0	0.0	1	20.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	20.0
		Subtotal	0	0.0	2	40.0	0	0.0	3	60.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	100.0
Male Mean Length			–		585	–		706	–		–	–		–	–		–	–				
SE			–		25	–		26	–		–	–		–	–		–	–				
Range			–		560–610	–		680–731	–		–	–		–	–		–	–				
n			–		2	–		2	–		–	–		–	–		–	–				
Female Mean Length			–		–	–		800	–		–	–		–	–		–	–				
SE			–		–	–		–	–		–	–		–	–		–	–				
Range			–		–	–		–	–		–	–		–	–		–	–				
n			–		–	–		1	–		–	–		–	–		–	–				

-continued-



Sample Dates	Sample Size		Brood Year (Age)																Total					
			2008		2007				2006				2005				2004				2003			
			(1.1)		(1.2)	(2.1)			(1.3)	(2.2)			(1.4)	(2.3)			(1.5)	(2.4)			(1.6)	(2.5)	N	%
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
6/29 7" Drift Gillnet	6	Male	0	0.0	1	16.7	0	0.0	3	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	66.7
		Female	0	0.0	0	0.0	0	0.0	1	16.7	0	0.0	1	16.7	0	0.0	0	0.0	0	0.0	0	0.0	2	33.3
		Subtotal	0	0.0	1	16.7	0	0.0	4	66.7	0	0.0	1	16.7	0	0.0	0	0.0	0	0.0	0	0.0	6	100.0
		Male Mean Length	–		530	–		692	–		–	–		–	–		–	–		–	–			
		SE	–		–	–		14	–		–	–		–	–		–	–		–	–			
		Range	–		–	–		665–710	–		–	–		–	–		–	–		–	–			
		n	–		1	–		3	–		–	–		–	–		–	–		–	–			
		Female Mean Length	–		–	–		820	–		780	–		–	–		–	–		–	–			
		SE	–		–	–		–	–		–	–		–	–		–	–		–	–			
	Range	–		–	–		–	–		–	–		–	–		–	–		–	–				
	n	–		–	–		1	–		1	–		–	–		–	–		–	–				
6/16, 21 7.5" Drift Gillnet	15	Male	0	0.0	1	6.7	0	0.0	10	66.7	0	0.0	1	6.7	0	0.0	0	0.0	0	0.0	0	0.0	12	80.0
		Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	20.0	0	0.0	0	0.0	0	0.0	0	0.0	3	20.0
		Subtotal	0	0.0	1	6.7	0	0.0	10	66.7	0	0.0	4	26.7	0	0.0	0	0.0	0	0.0	0	0.0	15	100.0
		Male Mean Length	–		691	–		723	–		832	–		–	–		–	–		–	–			
		SE	–		–	–		9	–		–	–		–	–		–	–		–	–			
		Range	–		–	–		665–760	–		–	–		–	–		–	–		–	–			
		n	–		1	–		10	–		1	–		–	–		–	–		–	–			
		Female Mean Length	–		–	–		–	–		866	–		–	–		–	–		–	–			
		SE	–		–	–		–	–		28	–		–	–		–	–		–	–			
	Range	–		–	–		–	–		821–916	–		–	–		–	–		–	–				
	n	–		–	–		–	–		3	–		–	–		–	–		–	–				

-continued-

Sample Dates	Sample Size		Brood Year (Age)																Total	
			2008		2007		2006		2005		2004		2003							
			(1.1)		(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)	N	%				
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
6/17 7.5" Set Gillnet	16	Male	0	0.0	0	0.0	14	87.5	0	0.0	1	6.3	0	0.0	0	0.0	0	0.0	15	93.8
		Female	0	0.0	0	0.0	0	0.0	0	0.0	1	6.3	0	0.0	0	0.0	0	0.0	1	6.3
		Subtotal	0	0.0	0	0.0	14	87.5	0	0.0	2	12.5	0	0.0	0	0.0	0	0.0	16	100.0
		Male Mean Length	—		—		698		—		780		—		—		—			
		SE	—		—		7		—		—		—		—		—			
		Range	—		—		625–738		—		—		—		—		—			
		n	—		—		14		—		1		—		—		—			
		Female Mean Length	—		—		—		—		865		—		—		—			
		SE	—		—		—		—		—		—		—		—			
		Range	—		—		—		—		—		—		—		—			
		n	—		—		—		—		1		—		—		—			
		Total 7.5"	31	Male	0	0.0	1	3.2	24	77.4	0	0.0	2	6.5	0	0.0	0	0.0	0	0.0
Female	0			0.0	0	0.0	0	0.0	0	0.0	4	12.9	0	0.0	0	0.0	0	0.0	4	12.9
Subtotal	0			0.0	1	3.2	24	77.4	0	0.0	6	19.4	0	0.0	0	0.0	0	0.0	31	100.0
Male Mean Length	—				691		—		709		—		806		—		—			
SE	—				—		—		6		—		26		—		—			
Range	—				—		—		625–760		—		780–832		—		—			
n	—				1		—		24		—		2		—		—			
Female Mean Length	—				—		—		—		—		866		—		—			
SE	—				—		—		—		—		19		—		—			
Range	—				—		—		—		—		821–916		—		—			
n	—				—		—		—		—		4		—		—			

-continued-

Sample Dates	Sample Size		Brood Year (Age)																Total					
			2008		2007				2006				2005				2004				2003			
			(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)	
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
All Gear	53	Male	0	0.0	6	11.3	0	0.0	36	67.9	0	0.0	2	3.8	0	0.0	0	0.0	0	0.0	0	0.0	44	83.0
		Female	0	0.0	0	0.0	0	0.0	2	3.8	0	0.0	7	13.2	0	0.0	0	0.0	0	0.0	0	0.0	9	17.0
		Total	0	0.0	6	11.3	0	0.0	38	71.7	0	0.0	9	17.0	0	0.0	0	0.0	0	0.0	0	0.0	53	100.0
		Male Mean Length	—		594	—		704	—			806	—			—	—	—	—	—	—	—	—	
		SE	—		23	—		6	—			26	—			—	—	—	—	—	—	—	—	
		Range	—		530–691	—		616–788	—			780–832	—			—	—	—	—	—	—	—	—	
		n	—		6	—		36	—			2	—			—	—	—	—	—	—	—	—	
		Female Mean Length	—		—	—		810	—			846	—			—	—	—	—	—	—	—	—	
		SE	—		—	—		10	—			16	—			—	—	—	—	—	—	—	—	
		Range	—		—	—		800–820	—			780–916	—			—	—	—	—	—	—	—	—	
		n	—		—	—		2	—			7	—			—	—	—	—	—	—	—	—	

Appendix A5.—Yukon River District 2 (St. Mary's) Chinook salmon subsistence gillnet harvest, age and sex composition, and mean length (mm), 2011.

		Brood Year (Age)																						
Sample Dates	Sample Size		2008		2007		2006		2005		2004		2003		Total									
			(1.1)		(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)										
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%				
6/12, 13, 19–20 6" Drift Gillnet	28	Male	0	0.0	11	39.3	0	0.0	14	50.0	0	0.0	2	7.1	0	0.0	0	0.0	0	0.0	27	96.4		
		Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	3.6	0	0.0	0	0.0	0	0.0	1	3.6		
		Subtotal	0	0.0	11	39.3	0	0.0	14	50.0	0	0.0	3	10.7	0	0.0	0	0.0	0	0.0	28	100.0		
		Male Mean Length	–		573	–	696	–	816	–	–	–	–	–	–	–	–	–	–	–	–	–		
	SE	–		11	–	13	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–			
	Range	–		503–643	–	600–769	–	815–817	–	–	–	–	–	–	–	–	–	–	–	–	–			
	n	–		11	–	14	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–			
	Female Mean Length	–		–	–	–	–	833	–	–	–	–	–	–	–	–	–	–	–	–	–			
	SE	–		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–			
	Range	–		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–			
	n	–		–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–			
6/12–13, 18–20 7.5" Drift Gillnet	149	Male	0	0.0	7	4.7	0	0.0	83	55.7	1	0.7	17	11.4	1	0.7	0	0.0	1	0.7	0	0.0	110	73.8
		Female	0	0.0	0	0.0	0	0.0	7	4.7	0	0.0	30	20.1	0	0.0	1	0.7	1	0.7	0	0.0	39	26.2
		Subtotal	0	0.0	7	4.7	0	0.0	90	60.4	1	0.7	47	31.5	1	0.7	1	0.7	2	1.3	0	0.0	149	100.0
		Male Mean Length	–		563	–	710	675	825	756	–	833	–	–	–	–	–	–	–	–	–	–	–	
	SE	–		12	–	5	–	14	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
	Range	–		510–610	–	540–830	–	720–925	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
	n	–		7	–	83	1	17	1	–	1	–	–	1	–	–	–	–	–	–	–	–		
	Female Mean Length	–		–	–	768	–	848	–	874	869	–	–	–	–	–	–	–	–	–	–	–		
	SE	–		–	–	17	–	10	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
	Range	–		–	–	725–852	–	746–970	–	–	–	–	–	–	–	–	–	–	–	–	–	–		
	n	–		–	–	7	–	30	–	1	1	–	–	1	1	–	–	–	–	–	–	–		

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Sample Dates	Sample Size		Brood Year (Age)																Total								
			2008		2007				2006				2005				2004				2003						
			(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)				
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%			
All Mesh	177	Male	0	0.0	18	10.2	0	0.0	97	54.8	1	0.6	19	10.7	1	0.6	0	0.0	1	0.6	0	0.0	0	0.0	137	77.4	
		Female	0	0.0	0	0.0	0	0.0	7	4.0	0	0.0	31	17.5	0	0.0	1	0.6	1	0.6	0	0.0	0	0.0	40	22.6	
		Total	0	0.0	18	10.2	0	0.0	104	58.8	1	0.6	50	28.2	1	0.6	1	0.6	2	1.1	0	0.0	0	0.0	177	100.0	
		Male Mean Length	–		569	–		708	675		824	756	–		833	–		–			–		–				
		SE	–		8	–		5	–		13	–	–		–	–		–		–		–		–			
		Range	–		503–643	–		540–830	–		720–925	–	–		–	–		–		–		–		–			
		n	–		18	–		97	1		19	1	–		1	–		1		–		–		–			
		Female Mean Length	–		–	–		768	–		847	–	874	869	–		–		–		–		–		–		
		SE	–		–	–		17	–		10	–	–		–	–		–		–		–		–			
		Range	–		–	–		725–852	–		746–970	–	–		–	–		–		–		–		–			
	n	–		–	–		7	–		31	–	1	1	–		1	1	–		–		–		–			

Appendix A6.—Yukon River District 3 and Subdistrict 4-A (Anvik) Chinook salmon subsistence gillnet harvest, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)																Total							
			2008		2007		2006		2005		2004		2003													
			(1.1)		(1.2)	(2.1)	(1.3)		(2.2)	(1.4)		(2.3)	(1.5)		(2.4)	(1.6)		(2.5)								
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%						
6/15, 23, 26–28 7.5" Drift Gillnet	85	Male	0	0.0	0	0.0	0	0.0	38	44.7	0	0.0	15	17.6	0	0.0	0	0.0	1	1.2	0	0.0	0	0.0	54	63.5
		Female	0	0.0	0	0.0	0	0.0	9	10.6	0	0.0	21	24.7	0	0.0	1	1.2	0	0.0	0	0.0	0	0.0	31	36.5
		Subtotal	0	0.0	0	0.0	0	0.0	47	55.3	0	0.0	36	42.4	0	0.0	1	1.2	1	1.2	0	0.0	0	0.0	85	100.0
		Male Mean Length	—		—		—		733		—		805		—		—		820		—		—			
		SE	—		—		—		6		—		11		—		—		—		—		—			
		Range	—		—		—		665–850		—		710–855		—		—		—		—		—			
		n	—		—		—		38		—		15		—		—		1		—		—			
		Female Mean Length	—		—		—		762		—		841		—		870		—		—		—			
		SE	—		—		—		11		—		13		—		—		—		—		—			
		Range	—		—		—		705–820		—		740–960		—		—		—		—		—			
		n	—		—		—		9		—		21		—		1		—		—		—			
6/12–17, 20–21, 27–28 7.5" Set Gillnet	266	Male	0	0.0	0	0.0	0	0.0	126	47.4	0	0.0	42	15.8	1	0.4	0	0.0	4	1.5	0	0.0	0	0.0	173	65.0
		Female	0	0.0	0	0.0	0	0.0	37	13.9	0	0.0	50	18.8	3	1.1	0	0.0	3	1.1	0	0.0	0	0.0	93	35.0
		Subtotal	0	0.0	0	0.0	0	0.0	163	61.3	0	0.0	92	34.6	4	1.5	0	0.0	7	2.6	0	0.0	0	0.0	266	100.0
		Male Mean Length	—		—		—		721		—		809		710		—		838		—		—			
		SE	—		—		—		4		—		8		—		—		10		—		—			
		Range	—		—		—		570–820		—		720–920		—		—		820–860		—		—			
		n	—		—		—		126		—		42		1		—		4		—		—			
		Female Mean Length	—		—		—		742		—		841		747		—		818		—		—			
		SE	—		—		—		7		—		7		20		—		22		—		—			
		Range	—		—		—		640–830		—		740–940		710–780		—		780–855		—		—			
		n	—		—		—		37		—		50		3		—		3		—		—			

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Sample Dates	Sample Size		Brood Year (Age)																Total							
			2008		2007		2006		2005		2004		2003													
			(1.1)		(1.2)	(2.1)		(1.3)	(2.2)		(1.4)	(2.3)		(1.5)	(2.4)		(1.6)	(2.5)								
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%						
All Gear	351	Male	0	0.0	0	0.0	0	0.0	164	46.7	0	0.0	57	16.2	1	0.3	0	0.0	5	1.4	0	0.0	0	0.0	227	64.7
		Female	0	0.0	0	0.0	0	0.0	46	13.1	0	0.0	71	20.2	3	0.9	1	0.3	3	0.9	0	0.0	0	0.0	124	35.3
		Total	0	0.0	0	0.0	0	0.0	210	59.8	0	0.0	128	36.5	4	1.1	1	0.3	8	2.3	0	0.0	0	0.0	351	100.0
			Male Mean Length	–		–		–	724		–	808	710		–	834		–	–							
			SE	–		–		–	3		–	6	–		–	9		–	–							
			Range	–		–		–	570–850		–	710–920	–		–	820–860		–	–							
			n	–		–		–	164		–	57	1		–	5		–	–							
			Female Mean Length	–		–		–	746		–	841	747		870	818		–	–							
			SE	–		–		–	6		–	6	20		–	22		–	–							
			Range	–		–		–	640–830		–	740–960	710–780		–	780–855		–	–							
			n	–		–		–	46		–	71	3		1	3		–	–							

Appendix A7.—Yukon River Subdistrict 4-A (Kaltag) Chinook salmon subsistence 7.5 in mesh drift gillnet harvest, age and sex composition, and mean length (mm), 2011.

		Brood Year (Age)																											
Sample Dates	Sample Size			2008				2007				2006				2005				2004				2003					
				(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total			
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
6/22–24, 6/29–7/1 stratum 1	136	Male	0	0.0	3	2.2	0	0.0	56	41.2	0	0.0	29	21.3	0	0.0	1	0.7	1	0.7	0	0.0	0	0.0	90	66.2			
		Female	0	0.0	0	0.0	0	0.0	10	7.4	0	0.0	35	25.7	0	0.0	0	0.0	1	0.7	0	0.0	0	0.0	46	33.8			
		Subtotal	0	0.0	3	2.2	0	0.0	66	48.5	0	0.0	64	47.1	0	0.0	1	0.7	2	1.5	0	0.0	0	0.0	136	100.0			
		Male Mean Length	–		570	–			721	–			833	–			955	900	–		–								
		SE	–		16	–			5	–			14	–			–	–	–		–								
		Range	–		540–595	–			620–795	–			680–970	–			–	–	–		–								
		n	–		3	–			56	–			29	–			1	1	–		–								
		Female Mean Length	–		–	–			800	–			860	–			–	840	–		–								
		SE	–		–	–			17	–			8	–			–	–	–		–								
		Range	–		–	–			750–935	–			790–1005	–			–	–	–		–								
n	–		–	–			10	–			35	–			–	1	–		–										
7/6–8, 10–14 stratum 2	65	Male	0	0.0	1	1.5	0	0.0	17	26.2	0	0.0	10	15.4	1	1.5	1	1.5	0	0.0	0	0.0	0	0.0	30	46.2			
		Female	0	0.0	0	0.0	0	0.0	6	9.2	0	0.0	26	40.0	1	1.5	0	0.0	2	3.1	0	0.0	0	0.0	35	53.8			
		Subtotal	0	0.0	1	1.5	0	0.0	23	35.4	0	0.0	36	55.4	2	3.1	1	1.5	2	3.1	0	0.0	0	0.0	65	100.0			
		Male Mean Length	–		645	–			736	–			825	750			910	–		–									
		SE	–		–	–			12	–			23	–			–	–	–		–								
		Range	–		–	–			600–800	–			760–1005	–			–	–	–		–								
		n	–		1	–			17	–			10	1			1	–	–		–								
		Female Mean Length	–		–	–			809	–			864	770			–	895	–		–								
		SE	–		–	–			20	–			10	–			–	10	–		–								
		Range	–		–	–			770–890	–			765–970	–			–	885–905	–		–								
n	–		–	–			6	–			26	1			–	2	–		–										

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		Brood Year (Age)																								
		2008		2007				2006				2005				2004				2003						
Sample	Sample	(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total		
Dates	Size	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Total	201	Male	0	0.0	4	2.0	0	0.0	73	36.3	0	0.0	39	19.4	1	0.5	2	1.0	1	0.5	0	0.0	0	0.0	120	59.7
		Female	0	0.0	0	0.0	0	0.0	16	8.0	0	0.0	61	30.3	1	0.5	0	0.0	3	1.5	0	0.0	0	0.0	81	40.3
		Total	0	0.0	4	2.0	0	0.0	89	44.3	0	0.0	100	49.8	2	1.0	2	1.0	4	2.0	0	0.0	0	0.0	201	100.0
		Male Mean Length	–		589	–		724	–			831	750			933	900			–	–					
		SE	–		22	–		5	–			12	–			23	–			–	–					
		Range	–		540–645	–		600–800	–			680–1005	–			910–955	–			–	–					
		n	–		4	–		73	–			39	1			2	1			–	–					
		Female Mean Length	–		–	–		803	–			861	770			–	877			–	–					
		SE	–		–	–		12	–			6	–			–	19			–	–					
		Range	–		–	–		750–935	–			765–1005	–			–	840–905			–	–					
		n	–		–	–		16	–			61	1			–	3			–	–					

Appendix A8.—Yukon River Subdistrict 4—A (Nulato) Chinook salmon subsistence 7.5 in mesh gillnet harvest, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)																Total			
			2008		2007		2006		2005		2004		2003									
			(1.1)		(1.2)	(2.1)	(1.3)		(2.2)	(1.4)		(2.3)	(1.5)		(2.4)	(1.6)		(2.5)				
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%				
6/21, 24, 30; 7/6, 8, 10 7.5" Drift Gillnet	55	Male	0	0.0	1	1.8	0	0.0	28	50.9	0	0.0	9	16.4	0	0.0	0	0.0	0	0.0	38	69.1
		Female	0	0.0	0	0.0	0	0.0	4	7.3	0	0.0	13	23.6	0	0.0	0	0.0	0	0.0	17	30.9
		Subtotal	0	0.0	1	1.8	0	0.0	32	58.2	0	0.0	22	40.0	0	0.0	0	0.0	0	0.0	55	100.0
	Male Mean Length	—	—	500	—	723	—	811	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		SE	—	—	—	9	—	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Range	—	—	—	580–800	—	705–845	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		n	—	—	1	—	28	—	9	—	—	—	—	—	—	—	—	—	—	—	—	—
		Female Mean Length	—	—	—	747	—	860	—	—	—	—	—	—	—	—	—	—	—	—	—	—
			SE	—	—	—	35	—	13	—	—	—	—	—	—	—	—	—	—	—	—	—
	Range		—	—	—	657–830	—	765–955	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	n	—	—	—	4	—	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	7/11 7.5" Set Gillnet	5	Male	0	0.0	0	0.0	0	0.0	1	20.0	0	0.0	1	20.0	0	0.0	0	0.0	0	0.0	2
Female			0	0.0	0	0.0	0	0.0	0	0.0	2	40.0	0	0.0	1	20.0	0	0.0	0	0.0	3	60.0
Subtotal			0	0.0	0	0.0	0	0.0	1	20.0	0	0.0	3	60.0	0	0.0	1	20.0	0	0.0	5	100.0
Male Mean Length		—	—	—	725	—	840	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		SE	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Range	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		n	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Female Mean Length	—	—	—	—	—	888	—	905	—	—	—	—	—	—	—	—	—	—	—	—
			SE	—	—	—	—	—	13	—	—	—	—	—	—	—	—	—	—	—	—	—
Range			—	—	—	—	—	875–900	—	—	—	—	—	—	—	—	—	—	—	—	—	—
n		—	—	—	—	—	2	—	1	—	—	—	—	—	—	—	—	—	—	—	—	

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Appendix A8.–Page 2 of 2.

Sample Dates	Sample Size	Brood Year (Age)																Total						
		2008		2007				2006				2005				2004				2003				
		(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Total 7.5"	60	Male	0	0.0	1	1.7	0	0.0	29	48.3	0	0.0	10	16.7	0	0.0	0	0.0	0	0.0	0	0.0	40	66.7
		Female	0	0.0	0	0.0	0	0.0	4	6.7	0	0.0	15	25.0	0	0.0	1	1.7	0	0.0	0	0.0	20	33.3
		Total	0	0.0	1	1.7	0	0.0	33	55.0	0	0.0	25	41.7	0	0.0	1	1.7	0	0.0	0	0.0	60	100.0
		Male Mean Length	—		500	—		723	—		814	—		—	—		—	—		—	—			
		SE	—		—	—		8	—		14	—		—	—		—	—		—	—			
		Range	—		—	—		580–800	—		705–845	—		—	—		—	—		—	—			
		n	—		1	—		29	—		10	—		—	—		—	—		—	—			
		Female Mean Length	—		—	—		747	—		864	—		905	—		—	—		—	—			
		SE	—		—	—		35	—		11	—		—	—		—	—		—	—			
		Range	—		—	—		657–830	—		765–955	—		—	—		—	—		—	—			
		n	—		—	—		4	—		15	—		1	—		—	—		—	—			

Appendix A9.–Koyukuk River (Huslia) Chinook salmon subsistence 7.5 in mesh set gillnet harvest, age and sex composition, and mean length (mm), 2011.

		Brood Year (Age)																								
Sample Dates	Sample Size	2008		2007				2006				2005				2004				2003				Total		
		(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		N	%	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Total	68	Male	0	0.0	0	0.0	0	0.0	44	64.7	0	0.0	5	7.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	49	72.1
		Female	0	0.0	0	0.0	0	0.0	7	10.3	0	0.0	11	16.2	0	0.0	1	1.5	0	0.0	0	0.0	0	0.0	19	27.9
		Total	0	0.0	0	0.0	0	0.0	51	75.0	0	0.0	16	23.5	0	0.0	1	1.5	0	0.0	0	0.0	0	0.0	68	100.0
		Male Mean Length	–		–		–		727		–		794		–		–		–		–		–			
		SE	–		–		–		5		–		18		–		–		–		–		–			
		Range	–		–		–		660–790		–		750–850		–		–		–		–		–			
		n	–		–		–		44		–		5		–		–		–		–		–			
		Female Mean Length	–		–		–		743		–		879		–		890		–		–		–			
		SE	–		–		–		17		–		16		–		–		–		–		–			
		Range	–		–		–		670–790		–		810–1000		–		–		–		–		–			
		n	–		–		–		7		–		11		–		1		–		–		–			

Appendix A10.—Yukon River, Subdistricts 4-A, 4-B, and 4-C (Galena) Chinook salmon subsistence gillnet and fish wheel harvest, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)																Total				
			2008		2007		2006		2005		2004		2003										
			(1.1)		(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)	N	%							
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%					
6/20, 27–28 5.5" Set Gillnet	10	Male	0	0.0	1	10.0	0	0.0	5	50.0	0	0.0	1	10.0	0	0.0	0	0.0	0	0.0	7	70.0	
		Female	0	0.0	0	0.0	0	0.0	1	10.0	0	0.0	1	10.0	1	10.0	0	0.0	0	0.0	3	30.0	
		Subtotal	0	0.0	1	10.0	0	0.0	6	60.0	0	0.0	2	20.0	1	10.0	0	0.0	0	0.0	10	100.0	
	Male Mean Length	–		590	–		706	–		790	–		–	–	–	–	–	–	–	–	–		
		SE	–		–	–		28	–		–	–	–	–	–	–	–	–	–	–	–		
		Range	–		–	–		600–750	–		–	–	–	–	–	–	–	–	–	–	–		
	n	–		1	–		5	–		1	–		–	–	–	–	–	–	–	–	–		
		Female Mean Length	–		–	–		670	–		810	760	–	–	–	–	–	–	–	–	–		
			SE	–		–	–		–	–		–	–	–	–	–	–	–	–	–	–	–	
	Range		–		–	–		–	–		–	–	–	–	–	–	–	–	–	–	–		
	n	–		–	–		1	–		1	1	–	–	–	–	–	–	–	–	–	–		
6/24 6.5" Set Gillnet		8	Male	0	0.0	2	25.0	0	0.0	4	50.0	0	0.0	1	12.5	0	0.0	0	0.0	0	0.0	7	87.5
			Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	12.5	0	0.0	0	0.0	0	0.0	1	12.5
	Subtotal		0	0.0	2	25.0	0	0.0	4	50.0	0	0.0	2	25.0	0	0.0	0	0.0	0	0.0	8	100.0	
Male Mean Length	–		595	–		680	–		820	–		–	–	–	–	–	–	–	–	–			
	SE	–		15	–		11	–		–	–	–	–	–	–	–	–	–	–	–			
	Range	–		580–610	–		650–700	–		–	–	–	–	–	–	–	–	–	–	–			
n	–		2	–		4	–		1	–		–	–	–	–	–	–	–	–	–			
	Female Mean Length	–		–	–		–	–		880	–		–	–	–	–	–	–	–	–			
		SE	–		–	–		–	–		–	–	–	–	–	–	–	–	–	–			
Range		–		–	–		–	–		–	–	–	–	–	–	–	–	–	–				
n	–		–	–		–	–		1	–		–	–	–	–	–	–	–	–	–			

-continued-

Sample Dates	Sample Size		Brood Year (Age)																Total							
			2008		2007		2006		2005		2004		2003													
			(1.1)		(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)												
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%								
6/16–18 7" Set Gillnet	3	Male	0	0.0	0	0.0	0	0.0	2	66.7	0	0.0	1	33.3	0	0.0	0	0.0	0	0.0	0	0.0	3	100.0		
		Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0		
		Subtotal	0	0.0	0	0.0	0	0.0	2	66.7	0	0.0	1	33.3	0	0.0	0	0.0	0	0.0	0	0.0	3	100.0		
		Male Mean Length	–		–			700		–		710		–		–		–		–		–				
		SE	–		–			40		–		–		–		–		–		–		–				
		Range	–		–			660–740		–		–		–		–		–		–		–				
		n	–		–			2		–		1		–		–		–		–		–				
		Female Mean Length	–		–			–		–		–		–		–		–		–		–				
		SE	–		–			–		–		–		–		–		–		–		–				
		Range	–		–			–		–		–		–		–		–		–		–				
		n	–		–			–		–		–		–		–		–		–		–				
6/21–23; 7/11–12, 14 7.5" Drift Gillnet	82	Male	0	0.0	3	3.7	0	0.0	23	28.0	0	0.0	24	29.3	0	0.0	0	0.0	1	1.2	0	0.0	0	0.0	51	62.2
		Female	0	0.0	0	0.0	0	0.0	7	8.5	0	0.0	24	29.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	31	37.8
		Subtotal	0	0.0	3	3.7	0	0.0	30	36.6	0	0.0	48	58.5	0	0.0	0	0.0	1	1.2	0	0.0	0	0.0	82	100.0
		Male Mean Length	–		552		–	685		–		816		–		–		930		–		–		–		
		SE	–		30		–	10		–		12		–		–		–		–		–		–		
		Range	–		510–610		–	610–780		–		680–900		–		–		–		–		–		–		
		n	–		3		–	23		–		24		–		–		1		–		–		–		
		Female Mean Length	–		–		–	771		–		860		–		–		–		–		–		–		
		SE	–		–		–	10		–		8		–		–		–		–		–		–		
		Range	–		–		–	750–830		–		800–950		–		–		–		–		–		–		
		n	–		–		–	7		–		24		–		–		–		–		–		–		

-continued-

Sample Dates	Sample Size		Brood Year (Age)																Total					
			2008		2007				2006				2005				2004				2003			
			(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)	
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
6/15–18 7.5" Set Gillnet Week 1	50	Male	0	0.0	0	0.0	0	0.0	28	56.0	0	0.0	11	22.0	0	0.0	0	0.0	0	0.0	0	0.0	39	78.0
		Female	0	0.0	0	0.0	0	0.0	6	12.0	0	0.0	5	10.0	0	0.0	0	0.0	0	0.0	0	0.0	11	22.0
		Subtotal	0	0.0	0	0.0	0	0.0	34	68.0	0	0.0	16	32.0	0	0.0	0	0.0	0	0.0	0	0.0	50	100.0
		Male Mean Length	–		–		–		734		–		750		–		–		–		–			
	SE	–		–		–		8		–		12		–		–		–		–				
	Range	–		–		–		650–840		–		680–820		–		–		–		–				
	n	–		–		–		28		–		11		–		–		–		–				
	Female Mean Length	–		–		–		783		–		806		–		–		–		–				
	SE	–		–		–		35		–		27		–		–		–		–				
	Range	–		–		–		720–940		–		710–860		–		–		–		–				
	n	–		–		–		6		–		5		–		–		–		–				
6/19–24 7.5" Set Gillnet Week 2	101	Male	0	0.0	1	1.0	0	0.0	61	60.4	0	0.0	20	19.8	0	0.0	0	0.0	1	1.0	0	0.0	83	82.2
		Female	0	0.0	0	0.0	0	0.0	3	3.0	0	0.0	15	14.9	0	0.0	0	0.0	0	0.0	0	0.0	18	17.8
		Subtotal	0	0.0	1	1.0	0	0.0	64	63.4	0	0.0	35	34.7	0	0.0	0	0.0	1	1.0	0	0.0	101	100.0
		Male Mean Length	–		550		–		712		–		781		–		–		750		–			
	SE	–		–		–		5		–		14		–		–		–		–				
	Range	–		–		–		590–800		–		680–920		–		–		–		–				
	n	–		1		–		61		–		20		–		–		1		–				
	Female Mean Length	–		–		–		737		–		845		–		–		–		–				
	SE	–		–		–		3		–		11		–		–		–		–				
	Range	–		–		–		730–740		–		750–920		–		–		–		–				
	n	–		–		–		3		–		15		–		–		–		–				

-continued-

Sample Dates	Sample Size		Brood Year (Age)																		Total			
			2008		2007				2006				2005				2004						2003	
			(1.1)		(1.2)	(2.1)			(1.3)	(2.2)			(1.4)	(2.3)			(1.5)	(2.4)			(1.6)	(2.5)	N	%
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
6/27–28	125	Male	0	0.0	2	1.6	0	0.0	70	56.0	0	0.0	22	17.6	1	0.8	0	0.0	2	1.6	0	0.0	97	77.6
7.5" Set		Female	0	0.0	0	0.0	0	0.0	6	4.8	0	0.0	22	17.6	0	0.0	0	0.0	0	0.0	0	0.0	28	22.4
Gillnet		Subtotal	0	0.0	2	1.6	0	0.0	76	60.8	0	0.0	44	35.2	1	0.8	0	0.0	2	1.6	0	0.0	125	100.0
Week 3		Male Mean Length	–		610	–			714	–			810	770	–		–	875	–		–			
		SE	–		–	–			4	–			12	–	–		–	25	–		–			
		Range	–		–	–			660–780	–			720–960	–	–		–	850–900	–		–			
		n	–		2	–			70	–			22	1	–		–	2	–		–			
		Female Mean Length	–		–	–			765	–			855	–	–		–	–	–	–	–			
		SE	–		–	–			9	–			9	–	–		–	–	–	–	–			
		Range	–		–	–			740–800	–			760–950	–	–		–	–	–	–	–			
		n	–		–	–			6	–			22	–	–		–	–	–	–	–			
7/4–5, 11–																								
12, 14–15,																								
19	95	Male	0	0.0	2	2.1	0	0.0	29	30.5	0	0.0	29	30.5	0	0.0	0	0.0	0	0.0	0	0.0	60	63.2
7.5" Set		Female	0	0.0	0	0.0	0	0.0	6	6.3	0	0.0	29	30.5	0	0.0	0	0.0	0	0.0	0	0.0	35	36.8
Gillnet		Subtotal	0	0.0	2	2.1	0	0.0	35	36.8	0	0.0	58	61.1	0	0.0	0	0.0	0	0.0	0	0.0	95	100.0
Weeks 4–6		Male Mean Length	–		610	–			734	–			817	–	–		–	–	–	–	–			
		SE	–		30	–			8	–			10	–	–		–	–	–	–	–			
		Range	–		580–640	–			590–790	–			720–990	–	–		–	–	–	–	–			
		n	–		2	–			29	–			29	–	–		–	–	–	–	–			
		Female Mean Length	–		–	–			747	–			849	–	–		–	–	–	–	–			
		SE	–		–	–			18	–			9	–	–		–	–	–	–	–			
		Range	–		–	–			680–790	–			740–990	–	–		–	–	–	–	–			
		n	–		–	–			6	–			29	–	–		–	–	–	–	–			

-continued-



Sample Dates	Sample Size	Brood Year (Age)																		Total						
		2008		2007				2006				2005				2004						2003				
		(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)				
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%			
Total 7.5" Mesh	453	Male	0	0.0	8	1.8	0	0.0	211	46.6	0	0.0	106	23.4	1	0.2	0	0.0	4	0.9	0	0.0	0	0.0	330	72.8
		Female	0	0.0	0	0.0	0	0.0	28	6.2	0	0.0	95	21.0	0	0.0	0	0.0	0	0.0	0	0.0	123	27.2		
		Total	0	0.0	8	1.8	0	0.0	239	52.8	0	0.0	201	44.4	1	0.2	0	0.0	4	0.9	0	0.0	0	0.0	453	100.0
	Male Mean Length	–		581	–			716	–			802		770	–			858	–			–	–			
		SE	–		16	–			3	–			6	–			–		39	–			–	–		
		Range	–		510–640	–			590–840	–			680–990	–			–		750–930	–			–	–		
	n	–		8	–			211	–			106		1	–			4	–			–	–			
		Female Mean Length	–		–	–			764	–			850	–			–		–	–			–	–		
			SE	–		–	–			9	–			5	–			–		–	–			–	–	
	Range		–		–	–			680–940	–			710–990	–			–		–	–			–	–		
n	–		–	–			28	–			95	–			–		–	–			–	–				
	7/28 Fish Wheel	1	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Female			0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0
Subtotal			0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0
Male Mean Length		–		–	–			–	–			–	–			–	–	–	–			–	–			
		SE	–		–	–			–	–			–	–			–	–	–	–			–	–		
		Range	–		–	–			–	–			–	–			–	–	–	–			–	–		
n		–		–	–			–	–			–	–			–	–	–	–			–	–			
		Female Mean Length	–		–	–			–	–			900	–			–	–	–	–			–	–		
			SE	–		–	–			–	–			–	–			–	–	–	–			–	–	
Range			–		–	–			–	–			–	–			–	–	–	–			–	–		
n	–		–	–			–	–			1	–			–	–	–	–			–	–				

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		Brood Year (Age)																											
Sample Dates	Sample Size			2008				2007				2006				2005				2004				2003					
				(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total			
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
All Gear	475	Male	0	0.0	11	2.3	0	0.0	222	46.7	0	0.0	109	22.9	1	0.2	0	0.0	4	0.8	0	0.0	0	0.0	347	73.1			
		Female	0	0.0	0	0.0	0	0.0	29	6.1	0	0.0	98	20.6	1	0.2	0	0.0	0	0.0	0	0.0	0	0.0	128	26.9			
		Subtotal	0	0.0	11	2.3	0	0.0	251	52.8	0	0.0	207	43.6	2	0.4	0	0.0	4	0.8	0	0.0	0	0.0	475	100.0			
		Male Mean Length	–		584	–			715	–			801	770	–		858	–		–	–								
		SE	–		12	–			3	–			6	–	–		39	–		–	–	–							
		Range	–		510–640	–			590–840	–			680–990	–	–		750–930	–		–	–	–							
		n	–		11	–			222	–			109	1	–		4	–		–	–	–							
		Female Mean Length	–		–	–			760	–			851	760	–		–	–		–	–	–							
		SE	–		–	–			9	–			5	–	–		–	–		–	–	–							
		Range	–		–	–			670–940	–			710–990	–	–		–	–		–	–	–							
		n	–		–	–			29	–			98	1	–		–	–		–	–	–							

Appendix A11.—Yukon River, Subdistricts 4-B and 4-C (Ruby) Chinook salmon subsistence gillnet and fish wheel harvest, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)																Total					
			2008		2007				2006				2005				2004				2003			
			(1.1)		(1.2)	(2.1)			(1.3)	(2.2)			(1.4)	(2.3)			(1.5)	(2.4)			(1.6)	(2.5)	N	%
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
6/20–24, 27–28; 7/4– 5, 11–12 6" Set Gillnet	62	Male	0	0.0	18	29.0	0	0.0	38	61.3	0	0.0	3	4.8	0	0.0	0	0.0	0	0.0	59	95.2		
		Female	0	0.0	0	0.0	0	0.0	1	1.6	0	0.0	2	3.2	0	0.0	0	0.0	0	0.0	3	4.8		
		Subtotal	0	0.0	18	29.0	0	0.0	39	62.9	0	0.0	5	8.1	0	0.0	0	0.0	0	0.0	62	100.0		
		Male Mean Length	–		589	–			708	–			793	–			–	–	–	–				
		SE	–		6	–			8	–			32	–			–	–	–	–				
		Range	–		530–620	–			600–830	–			740–850	–			–	–	–	–				
		n	–		18	–			38	–			3	–			–	–	–	–				
		Female Mean Length	–		–	–			730	–			870	–			–	–	–	–				
		SE	–		–	–			–	–			30	–			–	–	–	–				
		Range	–		–	–			–	–			840–900	–			–	–	–	–				
		n	–		–	–			1	–			2	–			–	–	–	–				
	Unknown Mesh Set Gillnet	2	Male	0	0.0	1	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	50.0	
			Female	0	0.0	1	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	50.0	
Subtotal			0	0.0	2	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	100.0		
Male Mean Length			–		600	–			–	–			–	–			–	–	–	–				
		SE	–		–	–			–	–			–	–			–	–	–	–				
		Range	–		–	–			–	–			–	–			–	–	–	–				
		n	–		1	–			–	–			–	–			–	–	–	–				
		Female Mean Length	–		650	–			–	–			–	–			–	–	–	–				
		SE	–		–	–			–	–			–	–			–	–	–	–				
		Range	–		–	–			–	–			–	–			–	–	–	–				
		n	–		1	–			–	–			–	–			–	–	–	–				

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Sample Dates	Sample Size		Brood Year (Age)																Total						
			2008		2007				2006				2005				2004				2003				
			(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
6/20, 22–23 Fish Wheel	5	Male	0	0.0	0	0.0	0	0.0	4	80.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	80.0	
		Female	0	0.0	0	0.0	0	0.0	1	20.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	20.0	
		Subtotal	0	0.0	0	0.0	0	0.0	5	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	100.0	
		Male Mean Length	–		–		–	675		–		–		–		–		–		–		–			
		SE	–		–		–	21		–		–		–		–		–		–		–			
		Range	–		–		–	620–720		–		–		–		–		–		–		–			
		n	–		–		–	4		–		–		–		–		–		–		–			
		Female Mean Length	–		–		–	730		–		–		–		–		–		–		–			
		SE	–		–		–	–		–		–		–		–		–		–		–			
		Range	–		–		–	–		–		–		–		–		–		–		–			
		n	–		–		–	1		–		–		–		–		–		–		–			
All Gear	69	Male	0	0.0	19	27.5	0	0.0	42	60.9	0	0.0	3	4.3	0	0.0	0	0.0	0	0.0	0	0.0	64	92.8	
		Female	0	0.0	1	1.4	0	0.0	2	2.9	0	0.0	2	2.9	0	0.0	0	0.0	0	0.0	0	0.0	5	7.2	
		Total	0	0.0	20	29.0	0	0.0	44	63.8	0	0.0	5	7.2	0	0.0	0	0.0	0	0.0	0	0.0	69	100.0	
		Male Mean Length	–		590		–	705		–		793		–		–		–		–		–			
		SE	–		6		–	7		–		32		–		–		–		–		–			
		Range	–		530–620		–	600–830		–		740–850		–		–		–		–		–			
		n	–		19		–	42		–		3		–		–		–		–		–			
		Female Mean Length	–		650		–	730		–		870		–		–		–		–		–			
		SE	–		–		–	0		–		30		–		–		–		–		–			
		Range	–		–		–	730–730		–		840–900		–		–		–		–		–			
		n	–		1		–	2		–		2		–		–		–		–		–			

Appendix A12.—Yukon River Subdistrict 5-B (Tanana) Chinook salmon subsistence fish wheel harvest, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size	Brood Year (Age)																				Total			
		2008		2007				2006				2005				2004				2003					
		(1.1)		(1.2)	(2.1)			(1.3)	(2.2)			(1.4)	(2.3)			(1.5)	(2.4)			(1.6)	(2.5)	N	%		
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
7/6, 12–13 stratum 1	97	Male	0	0.0	11	11.3	0	0.0	31	32.0	0	0.0	11	11.3	1	1.0	0	0.0	1	1.0	0	0.0	55	56.7	
		Female	0	0.0	7	7.2	0	0.0	11	11.3	0	0.0	17	17.5	1	1.0	0	0.0	6	6.2	0	0.0	42	43.3	
		Subtotal	0	0.0	18	18.6	0	0.0	42	43.3	0	0.0	28	28.9	2	2.1	0	0.0	7	7.2	0	0.0	97	100.0	
	Male Mean Length	–		556	–		697	–		832	740	–		850	–										
		SE	–		11	–		10	–		20	–	–		–	–									
		Range	–		500–620	–		570–780	–		710–920	–	–		–	–									
	n	–		11	–		31	–		11	1	–		1	–										
		Female Mean Length	–		586	–		730	–		832	690	–		830	–									
			SE	–		15	–		19	–		12	–	–		24	–								
	Range		–		530–640	–		610–840	–		730–890	–	–		750–900	–									
	n	–		7	–		11	–		17	1	–		6	–										
7/16–17, 19 stratum 2		89	Male	0	0.0	14	15.7	0	0.0	22	24.7	1	1.1	14	15.7	0	0.0	1	1.1	1	1.1	0	0.0	53	59.6
			Female	0	0.0	0	0.0	0	0.0	8	9.0	0	0.0	27	30.3	0	0.0	1	1.1	0	0.0	0	0.0	36	40.4
	Subtotal		0	0.0	14	15.7	0	0.0	30	33.7	1	1.1	41	46.1	0	0.0	2	2.2	1	1.1	0	0.0	89	100.0	
	Male Mean Length	–		554	–		712	480		884	–		950	900	–										
		SE	–		9	–		15	–		22	–	–		–	–									
		Range	–		500–610	–		560–840	–		750–1030	–	–		–	–									
	n	–		14	–		22	1		14	–		1	1	–										
		Female Mean Length	–		–	–		704	–		857	–		930	–										
			SE	–		–	–		34	–		8	–	–		–	–								
	Range		–		–	–		590–850	–		760–950	–	–		–	–									
	n	–		–	–		8	–		27	–		1	–	–										

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		Brood Year (Age)																								
Sample Dates	Sample Size	2008		2007				2006				2005				2004				2003				Total		
		(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)				
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%			
Total	186	Male	0	0.0	25	13.4	0	0.0	53	28.5	1	0.5	25	13.4	1	0.5	1	0.5	2	1.1	0	0.0	0	0.0	108	58.1
		Female	0	0.0	7	3.8	0	0.0	19	10.2	0	0.0	44	23.7	1	0.5	1	0.5	6	3.2	0	0.0	0	0.0	78	41.9
		Total	0	0.0	32	17.2	0	0.0	72	38.7	1	0.5	69	37.1	2	1.1	2	1.1	8	4.3	0	0.0	0	0.0	186	100.0
Male Mean Length		–		555		–		704		480		861		740		950		875		–		–				
SE		–		7		–		9		–		16		–		–		25		–		–				
Range		–		500–620		–		560–840		–		710–1030		–		–		850–900		–		–				
n		–		25		–		53		1		25		1		1		2		–		–				
Female Mean Length		–		586		–		719		–		847		690		930		830		–		–				
SE		–		15		–		18		–		7		–		–		24		–		–				
Range		–		530–640		–		590–850		–		730–950		–		–		750–900		–		–				
n		–		7		–		19		–		44		1		1		6		–		–				

Appendix A13.—Yukon River Subdistrict 5-B (Rampart Rapids) Chinook salmon subsistence harvest, sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		N	%
6/18–20, 22–25, 29 7.25" Mesh Set Gillnet	38	Male	33	86.8
		Female	5	13.2
		Subtotal	38	100.0
		Male Mean Length	704	
		SE	27	
		Range	280–1,005	
		n	33	
		Female Mean Length	852	
		SE	30	
		Range	750–930	
		n	5	
6/22–25, 29 7.5" Mesh Set Gillnet	45	Male	39	86.7
		Female	6	13.3
		Subtotal	45	100.0
		Male Mean Length	765	
		SE	10	
		Range	605–915	
		n	39	
		Female Mean Length	869	
		SE	31	
		Range	765–980	
		n	6	
6/15–29; 7/5–6, 12–14, 16–18, 20– 21, 23, 27 Fish Wheel	1,123	Male	888	79.1
		Female	235	20.9
		Subtotal	1,123	100.0
		Male Mean Length	702	
		SE	3	
		Range	415–1,015	
		n	888	
		Female Mean Length	851	
		SE	4	
		Range	510–980	
		n	235	
All Gear	1,206	Male	960	79.6
		Female	246	20.4
		Total	1,206	100.0
		Male Mean Length	705	
		SE	3	
		Range	280–1,015	
		n	960	
		Female Mean Length	852	
		SE	4	
		Range	510–980	
		n	246	

Appendix A14.—Yukon River Subdistrict 5-C (Hess Creek) Chinook salmon subsistence 7.5 in mesh set gillnet harvest, age and sex composition, and mean length (mm), 2011.

		Brood Year (Age)																								
		2008		2007				2006				2005				2004				2003						
Sample	Sample	(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total		
Dates	Size	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Total	194	Male	0	0.0	4	2.1	0	0.0	72	37.1	0	0.0	49	25.3	1	0.5	1	0.5	7	3.6	0	0.0	0	0.0	134	69.1
		Female	0	0.0	0	0.0	0	0.0	5	2.6	0	0.0	48	24.7	0	0.0	0	0.0	7	3.6	0	0.0	0	0.0	60	30.9
		Total	0	0.0	4	2.1	0	0.0	77	39.7	0	0.0	97	50.0	1	0.5	1	0.5	14	7.2	0	0.0	0	0.0	194	100.0
Male Mean Length		—		550		—		740		—		842		720		955		856		—		—				
SE		—		32		—		5		—		8		—		—		22		—		—				
Range		—		460–610		—		630–840		—		745–985		—		—		790–960		—		—				
n		—		4		—		72		—		49		1		1		7		—		—				
Female Mean Length		—		—		—		784		—		867		—		—		859		—		—				
SE		—		—		—		7		—		6		—		—		12		—		—				
Range		—		—		—		765–805		—		780–965		—		—		805–905		—		—				
n		—		—		—		5		—		48		—		—		7		—		—				



Appendix A15.—Yukon River Subdistrict 5-D (Fort Yukon) Chinook salmon subsistence 7.5 in mesh set gillnet harvest, age and sex composition, and mean length (mm), 2011.

		Brood Year (Age)																				Total				
		2008		2007				2006				2005				2004				2003						
Sample	Sample	(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total		
Dates	Size	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Total	39	Male	0	0.0	10	25.6	0	0.0	18	46.2	0	0.0	4	10.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	32	82.1
		Female	0	0.0	0	0.0	0	0.0	1	2.6	0	0.0	4	10.3	0	0.0	0	0.0	2	5.1	0	0.0	0	0.0	7	17.9
		Total	0	0.0	10	25.6	0	0.0	19	48.7	0	0.0	8	20.5	0	0.0	0	0.0	2	5.1	0	0.0	0	0.0	39	100.0
		Male Mean Length	—		577		—		708		—		875		—		—		—		—		—			
		SE	—		16		—		14		—		31		—		—		—		—		—			
		Range	—		500–660		—		600–820		—		790–930		—		—		—		—		—			
		n	—		10		—		18		—		4		—		—		—		—		—			
		Female Mean Length	—		—		—		690		—		880		—		—		890		—		—			
		SE	—		—		—		—		—		15		—		—		20		—		—			
		Range	—		—		—		—		—		840–910		—		—		870–910		—		—			
		n	—		—		—		1		—		4		—		—		2		—		—			

Appendix A16.—Yukon River Subdistrict 5-D (Eagle) Chinook salmon subsistence gillnet and fish wheel harvest, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)																		Total			
			2008		2007				2006				2005				2004						2003	
			(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)	
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
7/10–12, 19 6" Mesh Set Gillnet	22	Male	0	0.0	2	9.1	0	0.0	16	72.7	0	0.0	1	4.5	0	0.0	0	0.0	0	0.0	0	0.0	19	86.4
		Female	0	0.0	0	0.0	0	0.0	1	4.5	0	0.0	2	9.1	0	0.0	0	0.0	0	0.0	0	0.0	3	13.6
		Subtotal	0	0.0	2	9.1	0	0.0	17	77.3	0	0.0	3	13.6	0	0.0	0	0.0	0	0.0	0	0.0	22	100.0
		Male Mean Length	–		545	–		722	–			920	–			–	–			–	–			
		SE	–		25	–		10	–			–	–			–	–			–	–			
		Range	–		520–570	–		640–805	–			–	–			–	–			–	–			
		n	–		2	–		16	–			1	–			–	–			–	–			
		Female Mean Length	–		–	–		800	–			870	–			–	–			–	–			
		SE	–		–	–		–	–			0	–			–	–			–	–			
		Range	–		–	–		–	–			–	–			–	–			–	–			
		n	–		–	–		1	–			2	–			–	–			–	–			
7/9 7.5" Mesh Set Gillnet	5	Male	0	0.0	0	0.0	0	0.0	3	60.0	0	0.0	0	0.0	0	0.0	1	20.0	0	0.0	0	0.0	4	80.0
		Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	20.0	0	0.0	0	0.0	0	0.0	0	0.0	1	20.0
		Subtotal	0	0.0	0	0.0	0	0.0	3	60.0	0	0.0	1	20.0	0	0.0	1	20.0	0	0.0	0	0.0	5	100.0
		Male Mean Length	–		–	–		738	–			–	–			840	–			–	–			
		SE	–		–	–		6	–			–	–			–	–			–	–			
		Range	–		–	–		730–750	–			–	–			–	–			–	–			
		n	–		–	–		3	–			–	–			1	–			–	–			
		Female Mean Length	–		–	–		–	–			850	–			–	–			–	–			
		SE	–		–	–		–	–			–	–			–	–			–	–			
		Range	–		–	–		–	–			–	–			–	–			–	–			
		n	–		–	–		–	–			1	–			–	–			–	–			

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Sample Dates	Sample Size		Brood Year (Age)																Total								
			2008		2007				2006				2005				2004				2003						
			(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)				
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%			
7/6–12, 18–19 Fish Wheel	136	Male	0	0.0	17	12.5	0	0.0	68	50.0	1	0.7	22	16.2	4	2.9	0	0.0	2	1.5	0	0.0	0	0.0	114	83.8	
		Female	0	0.0	0	0.0	0	0.0	5	3.7	0	0.0	15	11.0	0	0.0	1	0.7	1	0.7	0	0.0	0	0.0	22	16.2	
		Subtotal	0	0.0	17	12.5	0	0.0	73	53.7	1	0.7	37	27.2	4	2.9	1	0.7	3	2.2	0	0.0	0	0.0	136	100.0	
		Male Mean Length	–		574	–		687	660			813	686			–	798			–	–						
		SE	–		10	–		6	–			14	15			–	53			–	–						
		Range	–		490–660	–		570–800	–			715–955	650–715			–	745–850			–	–						
		n	–		17	–		68	1			22	4			–	2			–	–						
		Female Mean Length	–		–	–		752	–			864	–			865	825			–	–						
		SE	–		–	–		16	–			11	–			–	–			–	–						
		Range	–		–	–		710–800	–			810–960	–			–	–			–	–						
		n	–		–	–		5	–			15	–			1	1			–	–						
All Gear	163	Male	0	0.0	19	11.7	0	0.0	87	53.4	1	0.6	23	14.1	4	2.5	1	0.6	2	1.2	0	0.0	0	0.0	137	84.0	
		Female	0	0.0	0	0.0	0	0.0	6	3.7	0	0.0	18	11.0	0	0.0	1	0.6	1	0.6	0	0.0	0	0.0	26	16.0	
		Total	0	0.0	19	11.7	0	0.0	93	57.1	1	0.6	41	25.2	4	2.5	2	1.2	3	1.8	0	0.0	0	0.0	163	100.0	
		Male Mean Length	–		571	–		695	660			818	686			840	798			–	–						
		SE	–		9	–		5	–			14	15			–	53			–	–						
		Range	–		490–660	–		570–805	–			715–955	650–715			–	745–850			–	–						
		n	–		19	–		87	1			23	4			1	2			–	–						
		Female Mean Length	–		–	–		760	–			864	–			865	825			–	–						
		SE	–		–	–		15	–			9	–			–	–			–	–						
		Range	–		–	–		710–800	–			810–960	–			–	–			–	–						
		n	–		–	–		6	–			18	–			1	1			–	–						

Appendix A17.–Coastal District Dall Point test fishery Chinook salmon 8.25 in mesh drift gillnet, age and sex composition, and mean length (mm), 2011.

		Brood Year (Age)																				Total				
		2008		2007				2006				2005				2004				2003						
Sample	Sample	(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total		
Dates	Size	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Total	2	Male	0	0.0	0	0.0	0	0.0	1	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	50.0
		Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	50.0
		Total	0	0.0	0	0.0	0	0.0	1	50.0	0	0.0	1	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	100.0
		Male Mean Length	—		—		—		775		—		—		—		—		—		—		—			
		SE	—		—		—		—		—		—		—		—		—		—		—			
		Range	—		—		—		—		—		—		—		—		—		—		—			
		n	—		—		—		1		—		—		—		—		—		—		—			
		Female Mean Length	—		—		—		—		—		855		—		—		—		—		—			
		SE	—		—		—		—		—		—		—		—		—		—		—			
		Range	—		—		—		—		—		—		—		—		—		—		—			
		n	—		—		—		—		—		1		—		—		—		—		—			

Appendix A18.–Lower Yukon River test fishery (Big Eddy site) Chinook salmon 8.25 in mesh drift gillnet, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)																Total					
			2008		2007		2006		2005		2004		2003											
			(1.1)		(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)	N	%								
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%						
6/3, 5–6, 8–10, 12–15 stratum 1	95	Male	0	0.0	0	0.0	26	27.2	0	0.0	22	22.8	1	1.1	0	0.0	4	4.3	0	0.0	0	0.0	53	55.4
		Female	0	0.0	0	0.0	5	5.4	0	0.0	32	33.7	0	0.0	0	0.0	5	5.4	0	0.0	0	0.0	42	44.6
		Subtotal	0	0.0	0	0.0	31	32.6	0	0.0	54	56.5	1	1.1	0	0.0	9	9.8	0	0.0	0	0.0	95	100.0
		Male Mean Length	–	–	–	730	–	846	670	–	767	–	–	–	–	–	–							
		SE	–	–	–	9	–	10	–	–	8	–	–	–	–	–								
		Range	–	–	–	660–840	–	730–930	–	–	755–790	–	–	–	–	–								
		n	–	–	–	25	–	21	1	–	4	–	–	–	–									
		Female Mean Length	–	–	–	793	–	847	–	–	824	–	–	–	–	–								
		SE	–	–	–	8	–	7	–	–	16	–	–	–	–									
		Range	–	–	–	770–820	–	770–910	–	–	780–870	–	–	–	–									
		n	–	–	–	5	–	31	–	–	5	–	–	–	–									
6/16–24, 26–27 stratum 2	50	Male	0	0.0	1	1.4	0	0.0	13	26.1	0	0.0	6	11.6	0	0.0	2	4.3	0	0.0	0	0.0	22	43.5
		Female	0	0.0	0	0.0	4	8.7	0	0.0	22	44.9	0	0.0	1	2.9	0	0.0	0	0.0	0	0.0	28	56.5
		Subtotal	0	0.0	1	1.4	0	0.0	17	34.8	0	0.0	28	56.5	0	0.0	1	2.9	2	4.3	0	0.0	50	100.0
		Male Mean Length	–	610	–	748	–	839	–	–	862	–	–	–	–	–								
		SE	–	–	–	8	–	22	–	–	26	–	–	–	–									
		Range	–	–	–	685–830	–	730–925	–	–	820–910	–	–	–	–									
		n	–	1	–	18	–	8	–	–	3	–	–	–	–									
		Female Mean Length	–	–	–	738	–	846	–	905	–	–	–	–	–									
		SE	–	–	–	11	–	7	–	10	–	–	–	–										
		Range	–	–	–	690–765	–	770–930	–	895–915	–	–	–	–										
		n	–	–	–	6	–	31	–	2	–	–	–	–										

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Sample Dates	Sample Size		Brood Year (Age)																Total			
			2008		2007			2006			2005			2004			2003					
			(1.1)		(1.2)	(2.1)		(1.3)	(2.2)		(1.4)	(2.3)		(1.5)	(2.4)		(1.6)	(2.5)	N	%		
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
6/28–7/3, 7/5–6 stratum 3	65	Male	0	0.0	3	4.1	0	0.0	17	26.5	0	0.0	4	6.1	0	0.0	0	0.0	0	0.0	24	36.7
		Female	0	0.0	0	0.0	0	0.0	8	12.2	0	0.0	33	51.0	0	0.0	0	0.0	0	0.0	41	63.3
		Subtotal	0	0.0	3	4.1	0	0.0	25	38.8	0	0.0	37	57.1	0	0.0	0	0.0	0	0.0	65	100.0
		Male Mean Length	–		543	–		763	–		827	–		–	–		–	–				
		SE	–		3	–		15	–		3	–		–	–		–	–				
		Range	–		540–545	–		680–865	–		820–830	–		–	–		–	–				
		n	–		2	–		13	–		3	–		–	–		–	–				
		Female Mean Length	–		–	–		774	–		868	–		–	–		–	–				
		SE	–		–	–		19	–		7	–		–	–		–	–				
		Range	–		–	–		725–845	–		800–940	–		–	–		–	–				
		n	–		–	–		6	–		25	–		–	–		–	–				
Total	210	Male	0	0.0	3	1.4	0	0.0	56	26.7	0	0.0	32	15.2	1	0.5	0	0.0	7	3.3	99	47.1
		Female	0	0.0	0	0.0	0	0.0	17	8.1	0	0.0	87	41.4	0	0.0	2	1.0	5	2.4	111	52.9
		Total	0	0.0	3	1.4	0	0.0	73	34.8	0	0.0	119	56.7	1	0.5	2	1.0	12	5.7	210	100.0
		Male Mean Length	–		565	–		743	–		843	670		–	808		–	–				
		SE	–		23	–		6	–		8	–		–	22		–	–				
		Range	–		540–610	–		660–865	–		730–930	–		–	755–910		–	–				
		n	–		3	–		56	–		32	1		–	7		–	–				
		Female Mean Length	–		–	–		767	–		853	–		905	824		–	–				
		SE	–		–	–		10	–		4	–		10	16		–	–				
		Range	–		–	–		690–845	–		770–940	–		895–915	780–870		–	–				
		n	–		–	–		17	–		87	–		2	5		–	–				

Appendix A19.–Lower Yukon River test fishery (Big Eddy site) Chinook salmon 8.5 in mesh set gillnet, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)																		Total		
			2008		2007		2006		2005		2004		2003										
			(1.1)		(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)	N	%							
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%			
6/4–11, 13–14 Quartile 1	45	Male	0	0.0	1	2.2	0	0.0	15	33.3	0	0.0	10	22.2	0	0.0	1	2.2	0	0.0	27	60.0	
		Female	0	0.0	0	0.0	0	0.0	4	8.9	0	0.0	12	26.7	1	2.2	1	2.2	0	0.0	18	40.0	
		Subtotal	0	0.0	1	2.2	0	0.0	19	42.2	0	0.0	22	48.9	1	2.2	2	4.4	0	0.0	45	100.0	
	Male Mean Length	–		580	–	735	–	802	–	930	–	–	–	–	–	–	–	–	–	–	–		
		SE	–		–	–	14	–	16	–	–	–	–	–	–	–	–	–	–	–	–		
		Range	–		–	–	629–805	–	745–890	–	–	–	–	–	–	–	–	–	–	–	–		
	n	–		1	–	15	–	10	–	1	–	–	–	–	–	–	–	–	–	–	–		
		Female Mean Length	–		–	–	800	–	857	770	880	–	–	–	–	–	–	–	–	–	–		
			SE	–		–	–	17	–	10	–	–	–	–	–	–	–	–	–	–	–	–	
	Range		–		–	–	775–850	–	785–905	–	–	–	–	–	–	–	–	–	–	–	–		
n	–		–	–	4	–	12	1	1	–	–	–	–	–	–	–	–	–	–	–			
	6/15–21 Quartile 2	131	Male	0	0.0	6	4.6	0	0.0	37	28.2	0	0.0	24	18.3	0	0.0	1	0.8	2	1.5	70	53.4
			Female	0	0.0	0	0.0	0	0.0	5	3.8	0	0.0	48	36.6	0	0.0	5	3.8	3	2.3	61	46.6
Subtotal			0	0.0	6	4.6	0	0.0	42	32.1	0	0.0	72	55.0	0	0.0	6	4.6	5	3.8	131	100.0	
Male Mean Length	–		537	–	748	–	836	–	970	793	–	–	–	–	–	–	–	–	–	–			
	SE	–		24	–	8	–	12	–	–	3	–	–	–	–	–	–	–	–	–			
	Range	–		470–605	–	625–830	–	730–960	–	–	790–795	–	–	–	–	–	–	–	–	–			
n	–		6	–	37	–	24	–	1	2	–	–	–	–	–	–	–	–	–	–			
	Female Mean Length	–		–	–	771	–	852	–	901	810	–	–	–	–	–	–	–	–	–			
		SE	–		–	–	19	–	5	–	21	28	–	–	–	–	–	–	–	–			
Range		–		–	–	705–815	–	780–925	–	860–980	760–855	–	–	–	–	–	–	–	–				
n	–		–	–	5	–	48	–	5	3	–	–	–	–	–	–	–	–	–				

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Sample Dates	Sample Size		Brood Year (Age)																Total							
			2008		2007				2006				2005				2004				2003					
			(1.1)		(1.2)	(2.1)			(1.3)	(2.2)			(1.4)	(2.3)			(1.5)	(2.4)			(1.6)	(2.5)	N	%		
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%				
6/22–23, 27 Quartile 3	50	Male	0	0.0	2	4.0	0	0.0	13	26.0	0	0.0	8	16.0	0	0.0	0	0.0	1	2.0	0	0.0	0	0.0	24	48.0
		Female	0	0.0	0	0.0	0	0.0	4	8.0	0	0.0	21	42.0	0	0.0	0	0.0	1	2.0	0	0.0	0	0.0	26	52.0
		Subtotal	0	0.0	2	4.0	0	0.0	17	34.0	0	0.0	29	58.0	0	0.0	0	0.0	2	4.0	0	0.0	0	0.0	50	100.0
		Male Mean Length		–		605	–		686	–		824	–		–		790	–		–	–					
		SE		–		15	–		29	–		15	–		–		–	–		–	–					
		Range		–		590–620	–		500–845	–		770–900	–		–		–	–		–	–					
		n		–		2	–		13	–		8	–		–		1	–		–	–					
		Female Mean Length		–		–	–		789	–		857	–		–		825	–		–	–					
		SE		–		–	–		32	–		7	–		–		–	–		–	–					
		Range		–		–	–		695–840	–		820–965	–		–		–	–		–	–					
		n		–		–	–		4	–		21	–		–		1	–		–	–					
6/28–7/3 Quartile 4	12	Male	0	0.0	0	0.0	0	0.0	3	25.0	0	0.0	2	16.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	41.7
		Female	0	0.0	0	0.0	0	0.0	1	8.3	0	0.0	6	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	7	58.3
		Subtotal	0	0.0	0	0.0	0	0.0	4	33.3	0	0.0	8	66.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	12	100.0
		Male Mean Length		–		–	–		702	–		775	–		–		–	–		–	–					
		SE		–		–	–		16	–		5	–		–		–	–		–	–					
		Range		–		–	–		675–730	–		770–780	–		–		–	–		–	–					
		n		–		–	–		3	–		2	–		–		–	–		–	–					
		Female Mean Length		–		–	–		815	–		882	–		–		–	–		–	–					
		SE		–		–	–		–	–		32	–		–		–	–		–	–					
		Range		–		–	–		–	–		820–965	–		–		–	–		–	–					
		n		–		–	–		1	–		6	–		–		–	–		–	–					

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		Brood Year (Age)																								
Sample Dates	Sample Size	2008		2007				2006				2005				2004				2003				Total		
		(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total		
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Total	238	Male	0	0.0	9	3.8	0	0.0	68	28.6	0	0.0	44	18.5	0	0.0	2	0.8	3	1.3	0	0.0	0	0.0	126	52.9
		Female	0	0.0	0	0.0	0	0.0	14	5.9	0	0.0	87	36.6	1	0.4	6	2.5	4	1.7	0	0.0	0	0.0	112	47.1
		Total	0	0.0	9	3.8	0	0.0	82	34.5	0	0.0	131	55.0	1	0.4	8	3.4	7	2.9	0	0.0	0	0.0	238	100.0
		Male Mean Length	–		557	–		731	–			823	–			950		792		–		–				
		SE	–		19	–		8	–			8	–			20		2		–		–				
		Range	–		470–620	–		500–845	–			730–960	–			930–970		790–795		–		–				
		n	–		9	–		68	–			44	–			2		3		–		–				
		Female Mean Length	–		–	–		788	–			856	770			898		814		–		–				
		SE	–		–	–		12	–			4	–			18		20		–		–				
		Range	–		–	–		695–850	–			780–965	–			860–980		760–855		–		–				
		n	–		–	–		14	–			87	1			6		4		–		–				

Appendix A20.–Lower Yukon River test fishery (Middle Mouth site) Chinook salmon 8.5 in mesh set gillnet, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)																Total							
			2008	2007		2006		2005		2004		2003														
			(1.1) N	%	(1.2) N	(2.1) %	(2.1) N	(2.2) %	(1.3) N	(2.2) %	(1.4) N	(2.3) %	(1.4) N	(2.3) %	(1.5) N	(2.4) %	(1.5) N	(2.4) %	(1.6) N	(2.5) %	(1.6) N	(2.5) %				
6/3–14 Quartile 1	154	Male	0	0.0	0	0.0	0	0.0	49	31.8	0	0.0	42	27.3	0	0.0	0	0.0	7	4.5	0	0.0	0	0.0	98	63.6
		Female	0	0.0	0	0.0	0	0.0	3	1.9	0	0.0	46	29.9	0	0.0	0	0.0	6	3.9	0	0.0	1	0.6	56	36.4
		Subtotal	0	0.0	0	0.0	0	0.0	52	33.8	0	0.0	88	57.1	0	0.0	0	0.0	13	8.4	0	0.0	1	0.6	154	100.0
	Male Mean Length		–		–		–		752		–		834		–		–		820		–		–		–	
	SE		–		–		–		6		–		6		–		–		11		–		–		–	
	Range		–		–		–		635–845		–		760–930		–		–		775–850		–		–		–	
	n		–		–		–		49		–		42		–		–		7		–		–		–	
	Female Mean Length		–		–		–		818		–		875		–		–		855		–		940		–	
	SE		–		–		–		21		–		5		–		–		8		–		–		–	
	Range		–		–		–		795–860		–		825–960		–		–		825–880		–		–		–	
	n		–		–		–		3		–		46		–		–		6		–		1		–	
6/15–21 Quartile 2	199	Male	0	0.0	1	0.5	0	0.0	50	25.1	0	0.0	46	23.1	0	0.0	1	0.5	2	1.0	0	0.0	0	0.0	100	50.3
		Female	0	0.0	0	0.0	0	0.0	16	8.0	0	0.0	81	40.7	0	0.0	1	0.5	1	0.5	0	0.0	0	0.0	99	49.7
		Subtotal	0	0.0	1	0.5	0	0.0	66	33.2	0	0.0	127	63.8	0	0.0	2	1.0	3	1.5	0	0.0	0	0.0	199	100.0
	Male Mean Length		–		630		–		767		–		852		–		995		830		–		–		–	
	SE		–		–		–		6		–		6		–		–		20		–		–		–	
	Range		–		–		–		675–855		–		780–945		–		–		810–850		–		–		–	
	n		–		1		–		50		–		46		–		1		2		–		–		–	
	Female Mean Length		–		–		–		815		–		870		–		885		870		–		–		–	
	SE		–		–		–		8		–		4		–		–		–		–		–		–	
	Range		–		–		–		755–880		–		790–960		–		–		–		–		–		–	
	n		–		–		–		16		–		81		–		1		1		–		–		–	

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Sample Dates	Sample Size		Brood Year (Age)																Total							
			2008		2007				2006				2005				2004				2003					
			(1.1)		(1.2)	(2.1)			(1.3)	(2.2)			(1.4)	(2.3)			(1.5)	(2.4)			(1.6)	(2.5)	N	%		
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%				
6/22–27 Quartile 3	166	Male	0	0.0	1	0.6	0	0.0	34	20.5	0	0.0	28	16.9	1	0.6	1	0.6	1	0.6	0	0.0	0	0.0	66	39.8
		Female	0	0.0	0	0.0	0	0.0	10	6.0	0	0.0	89	53.6	0	0.0	1	0.6	0	0.0	0	0.0	0	0.0	100	60.2
		Subtotal	0	0.0	1	0.6	0	0.0	44	26.5	0	0.0	117	70.5	1	0.6	2	1.2	1	0.6	0	0.0	0	0.0	166	100.0
		Male Mean Length	–		605	–		765	–		848	755			1,015	840			–	–						
		SE	–		–	–		7	–		10	–			–	–			–	–						
		Range	–		–	–		635–860	–		780–980	–			–	–			–	–						
		n	–		1	–		34	–		28	1			1	1			–	–						
		Female Mean Length	–		–	–		797	–		875	–			890	–			–	–						
		SE	–		–	–		12	–		4	–			–	–			–	–						
		Range	–		–	–		730–850	–		785–970	–			–	–			–	–						
		n	–		–	–		10	–		89	–			1	–			–	–						
6/28–7/14 Quartile 4	241	Male	0	0.0	3	1.2	0	0.0	43	17.8	0	0.0	38	15.8	1	0.4	0	0.0	0	0.0	0	0.0	0	0.0	85	35.3
		Female	0	0.0	0	0.0	0	0.0	29	12.0	0	0.0	123	51.0	0	0.0	4	1.7	0	0.0	0	0.0	0	0.0	156	64.7
		Subtotal	0	0.0	3	1.2	0	0.0	72	29.9	0	0.0	161	66.8	1	0.4	4	1.7	0	0.0	0	0.0	0	0.0	241	100.0
		Male Mean Length	–		568	–		762	–		855	780			–	–			–	–						
		SE	–		7	–		8	–		7	–			–	–			–	–						
		Range	–		555–580	–		640–835	–		780–980	–			–	–			–	–						
		n	–		3	–		43	–		38	1			–	–			–	–						
		Female Mean Length	–		–	–		812	–		872	–			894	–			–	–						
		SE	–		–	–		7	–		4	–			18	–			–	–						
		Range	–		–	–		755–910	–		780–950	–			860–940	–			–	–						
		n	–		–	–		29	–		123	–			4	–			–	–						

–continued–

		Brood Year (Age)																								
		2008		2007				2006				2005				2004				2003						
Sample	Sample	(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total		
Dates	Size	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Total	760	Male	0	0.0	5	0.7	0	0.0	176	23.2	0	0.0	154	20.3	2	0.3	2	0.3	10	1.3	0	0.0	0	0.0	349	45.9
		Female	0	0.0	0	0.0	0	0.0	58	7.6	0	0.0	339	44.6	0	0.0	6	0.8	7	0.9	0	0.0	1	0.1	411	54.1
		Total	0	0.0	5	0.7	0	0.0	234	30.8	0	0.0	493	64.9	2	0.3	8	1.1	17	2.2	0	0.0	1	0.1	760	100.0
Male Mean Length		–		588	–			761	–			847	768			1,005	824			–	–					
SE		–		13	–			3	–			4	13			10	8			–	–					
Range		–		555–630	–			635–860	–			760–980	755–780			995–1,015	775–850			–	–					
n		–		5	–			176	–			154	2			2	10			–	–					
Female Mean Length		–		–	–			810	–			873	–			892	857			–	940					
SE		–		–	–			5	–			2	–			12	7			–	–					
Range		–		–	–			730–910	–			780–970	–			860–940	825–880			–	–					
n		–		–	–			58	–			339	–			6	7			–	1					

Appendix A21.–Lower Yukon River test fishery (combined Big Eddy and Middle Mouth sites) Chinook salmon 8.5 in mesh set gillnet, age and sex composition, and mean length (mm), 2011.

		Brood Year (Age)																								
		2008		2007				2006				2005				2004				2003				Total		
Sample	Sample	(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)				
Dates	Size	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
6/3–14 Quartile 1	199	Male	0	0.0	1	0.5	0	0.0	64	32.2	0	0.0	52	26.1	0	0.0	1	0.5	7	3.5	0	0.0	0	0.0	125	62.8
		Female	0	0.0	0	0.0	0	0.0	7	3.5	0	0.0	58	29.1	1	0.5	1	0.5	6	3.0	0	0.0	1	0.5	74	37.2
		Subtotal	0	0.0	1	0.5	0	0.0	71	35.7	0	0.0	110	55.3	1	0.5	2	1.0	13	6.5	0	0.0	1	0.5	199	100.0
		Male Mean Length	–		580	–			748	–			827	–			930		820	–			–	–		
		SE	–		–	–	–		6	–			6	–			–		11	–			–	–		
		Range	–		–	–	–		629–845	–			745–930	–			–		775–850	–			–	–		
		n	–		1	–	–		64	–			52	–			1		7	–			–	–		
		Female Mean Length	–		–	–	–		808	–			871	770			880		855	–			940			
		SE	–		–	–	–		13	–			4	–			–		8	–			–	–		
		Range	–		–	–	–		775–860	–			785–960	–			–		825–880	–			–	–		
		n	–		–	–	–		7	–			58	1			1		6	–			–	1		
	6/15–21 Quartile 2	330	Male	0	0.0	7	2.1	0	0.0	87	26.4	0	0.0	70	21.2	0	0.0	2	0.6	4	1.2	0	0.0	0	0.0	170
Female			0	0.0	0	0.0	0	0.0	21	6.4	0	0.0	129	39.1	0	0.0	6	1.8	4	1.2	0	0.0	0	0.0	160	48.5
Subtotal			0	0.0	7	2.1	0	0.0	108	32.7	0	0.0	199	60.3	0	0.0	8	2.4	8	2.4	0	0.0	0	0.0	330	100.0
		Male Mean Length	–		550	–			759	–			847	–			983		811	–			–	–		
		SE	–		24	–	–		5	–			6	–			13		14	–			–	–		
		Range	–		470–630	–	–		625–855	–			730–960	–			970–995	790–850	–			–	–			
		n	–		7	–	–		87	–			70	–			2		4	–			–	–		
		Female Mean Length	–		–	–	–		805	–			863	–			898		825	–			–	–		
		SE	–		–	–	–		8	–			3	–			18		25	–			–	–		
		Range	–		–	–	–		705–880	–			780–960	–			860–980	760–870	–			–	–			
		n	–		–	–	–		21	–			129	–			6		4	–			–	–		

-continued-

Sample Dates	Sample Size	Brood Year (Age)																		Total						
		2008		2007				2006				2005				2004						2003				
		(1.1)		(1.2)	(2.1)			(1.3)	(2.2)			(1.4)	(2.3)			(1.5)	(2.4)			(1.6)	(2.5)	N	%			
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%			
6/22–27 Quartile 3	216	Male	0	0.0	3	1.4	0	0.0	47	21.8	0	0.0	36	16.7	1	0.5	1	0.5	2	0.9	0	0.0	0	0.0	90	41.7
		Female	0	0.0	0	0.0	0	0.0	14	6.5	0	0.0	110	50.9	0	0.0	1	0.5	1	0.5	0	0.0	0	0.0	126	58.3
		Subtotal	0	0.0	3	1.4	0	0.0	61	28.2	0	0.0	146	67.6	1	0.5	2	0.9	3	1.4	0	0.0	0	0.0	216	100.0
	Male Mean Length		–		605	–			743	–			843	755			1,015	815			–	–				
	SE		–		9	–			11	–			9	–			–	25			–	–				
	Range		–		590–620	–			500–860	–			770–980	–			–	790–840			–	–				
	n		–		3	–			47	–			36	1			1	2			–	–				
	Female Mean Length		–		–	–			795	–			872	–			890	825			–	–				
	SE		–		–	–			12	–			4	–			–	–			–	–				
	Range		–		–	–			695–850	–			785–970	–			–	–			–	–				
	n		–		–	–			14	–			110	–			1	1			–	–				
6/28–7/14 Quartile 4	253	Male	0	0.0	3	1.2	0	0.0	46	18.2	0	0.0	40	15.8	1	0.4	0	0.0	0	0.0	0	0.0	0	0.0	90	35.6
		Female	0	0.0	0	0.0	0	0.0	30	11.9	0	0.0	129	51.0	0	0.0	4	1.6	0	0.0	0	0.0	0	0.0	163	64.4
		Subtotal	0	0.0	3	1.2	0	0.0	76	30.0	0	0.0	169	66.8	1	0.4	4	1.6	0	0.0	0	0.0	0	0.0	253	100.0
	Male Mean Length		–		568	–			758	–			851	780			–	–			–	–				
	SE		–		7	–			8	–			8	–			–	–			–	–				
	Range		–		555–580	–			640–835	–			770–980	–			–	–			–	–				
	n		–		3	–			46	–			40	1			–	–			–	–				
	Female Mean Length		–		–	–			812	–			873	–			894	–			–	–				
	SE		–		–	–			7	–			6	–			18	–			–	–				
	Range		–		–	–			755–910	–			780–965	–			860–940	–			–	–				
	n		–		–	–			30	–			129	–			4	–			–	–				

–continued–

Sample Size		Brood Year (Age)																				Total			
		2008		2007				2006				2005				2004				2003					
		(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)			
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
998	Male	0	0.0	14	1.4	0	0.0	244	24.4	0	0.0	198	19.8	2	0.2	4	0.4	13	1.3	0	0.0	0	0.0	475	47.6
	Female	0	0.0	0	0.0	0	0.0	72	7.2	0	0.0	426	42.7	1	0.1	12	1.2	11	1.1	0	0.0	1	0.1	523	52.4
	Total	0	0.0	14	1.4	0	0.0	316	31.7	0	0.0	624	62.5	3	0.3	16	1.6	24	2.4	0	0.0	1	0.1	998	100.0
Male Mean Length		–		568		–		753		–		842		768		978		817		–		–			
SE		–		13		–		3		–		3		13		18		7		–		–			
Range		–		470–630		–		500–860		–		730–980		755–780		930–1,015		775–850		–		–			
n		–		14		–		244		–		198		2		4		13		–		–			
Female Mean Length		–		–		–		806		–		869		770		895		841		–		940			
SE		–		–		–		4		–		2		–		10		10		–		–			
Range		–		–		–		695–910		–		780–970		–		860–980		760–880		–		–			
n		–		–		–		72		–		426		1		12		11		–		1			

Appendix A22.—Yukon River Mountain Village test fishery Chinook salmon 7.5 in mesh drift gillnet, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)																Total				
			2008		2007		2006		2005		2004		2003										
			(1.1)		(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)	N	%							
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%			
6/7–15 Quartile 1	78	Male	0	0.0	0	0.0	0	0.0	45	57.7	0	0.0	13	16.7	1	1.3	0	0.0	0	0.0	59	75.6	
		Female	0	0.0	0	0.0	0	0.0	8	10.3	0	0.0	10	12.8	0	0.0	0	0.0	1	1.3	19	24.4	
		Subtotal	0	0.0	0	0.0	0	0.0	53	67.9	0	0.0	23	29.5	1	1.3	0	0.0	1	1.3	78	100.0	
	Male Mean Length	—		—		—		718		—		806		695		—		—		—			
		SE	—		—		—		5		—		11		—		—		—		—		
		Range	—		—		—		615–790		—		735–890		—		—		—		—		
	n	—		—		—		45		—		13		1		—		—		—			
		Female Mean Length	—		—		—		777		—		862		—		—		830		—		
			SE	—		—		—		23		—		15		—		—		—		—	
	Range		—		—		—		690–920		—		800–945		—		—		—		—		
	n	—		—		—		8		—		10		—		—		1		—			
6/16–21 Quartile 2		104	Male	0	0.0	0	0.0	0	0.0	59	56.7	0	0.0	16	15.4	0	0.0	0	0.0	1	1.0	76	73.1
			Female	0	0.0	0	0.0	0	0.0	7	6.7	0	0.0	21	20.2	0	0.0	0	0.0	0	0.0	28	26.9
	Subtotal		0	0.0	0	0.0	0	0.0	66	63.5	0	0.0	37	35.6	0	0.0	1	1.0	0	0.0	104	100.0	
	Male Mean Length	—		—		—		720		—		819		—		—		810		—			
		SE	—		—		—		4		—		9		—		—		—		—		
		Range	—		—		—		635–830		—		730–870		—		—		—		—		
	n	—		—		—		59		—		16		—		—		1		—			
		Female Mean Length	—		—		—		787		—		861		—		—		—		—		
			SE	—		—		—		22		—		10		—		—		—		—	
	Range		—		—		—		705–890		—		790–940		—		—		—		—		
	n	—		—		—		7		—		21		—		—		—		—			

-continued-



Sample Dates	Sample Size		Brood Year (Age)																Total					
			2008		2007				2006				2005				2004				2003			
			(1.1)		(1.2)	(2.1)			(1.3)	(2.2)			(1.4)	(2.3)			(1.5)	(2.4)			(1.6)	(2.5)	N	%
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
6/22–25 Quartile 3	86	Male	0	0.0	2	2.3	0	0.0	43	50.0	0	0.0	14	16.3	0	0.0	0	0.0	1	1.2	0	0.0	60	69.8
		Female	0	0.0	1	1.2	0	0.0	5	5.8	0	0.0	20	23.3	0	0.0	0	0.0	0	0.0	0	0.0	26	30.2
		Subtotal	0	0.0	3	3.5	0	0.0	48	55.8	0	0.0	34	39.5	0	0.0	0	0.0	1	1.2	0	0.0	86	100.0
		Male Mean Length	–		625	–		722	–			826	–			715	–							
		SE	–		55	–		6	–			13	–			–	–							
		Range	–		570–680	–		620–805	–			760–920	–			–	–							
		n	–		2	–		43	–			14	–			1	–							
		Female Mean Length	–		580	–		787	–			836	–			–	–							
		SE	–		–	–		15	–			14	–			–	–							
		Range	–		–	–		730–820	–			705–940	–			–	–							
		n	–		1	–		5	–			20	–			–	–							
6/26–7/4, 7–10, 12–16 Quartile 4	98	Male	0	0.0	1	1.0	0	0.0	41	41.8	0	0.0	13	13.3	0	0.0	0	0.0	0	0.0	0	0.0	55	56.1
		Female	0	0.0	0	0.0	0	0.0	8	8.2	0	0.0	34	34.7	0	0.0	0	0.0	1	1.0	0	0.0	43	43.9
		Subtotal	0	0.0	1	1.0	0	0.0	49	50.0	0	0.0	47	48.0	0	0.0	0	0.0	1	1.0	0	0.0	98	100.0
		Male Mean Length	–		670	–		729	–			840	–			–	–							
		SE	–		–	–		6	–			19	–			–	–							
		Range	–		–	–		660–835	–			760–960	–			–	–							
		n	–		1	–		41	–			13	–			–	–							
		Female Mean Length	–		–	–		768	–			868	–			815	–							
		SE	–		–	–		9	–			8	–			–	–							
		Range	–		–	–		735–800	–			745–935	–			–	–							
		n	–		–	–		8	–			34	–			1	–							

-continued-

		Brood Year (Age)																											
Sample Dates	Sample Size			2008				2007				2006				2005				2004				2003					
				(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total			
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
Total	366	Male	0	0.0	3	0.8	0	0.0	188	51.4	0	0.0	56	15.3	1	0.3	0	0.0	2	0.5	0	0.0	0	0.0	250	68.3			
		Female	0	0.0	1	0.3	0	0.0	28	7.7	0	0.0	85	23.2	0	0.0	0	0.0	2	0.5	0	0.0	0	0.0	116	31.7			
		Total	0	0.0	4	1.1	0	0.0	216	59.0	0	0.0	141	38.5	1	0.3	0	0.0	4	1.1	0	0.0	0	0.0	366	100.0			
		Male Mean Length	–	640		–	722		–	823		695		–	763		–	–											
		SE	–	35		–	3		–	7		–		–	48		–	–											
		Range	–	570–680		–	615–835		–	730–960		–		–	715–810		–	–											
		n	–	3		–	188		–	56		1		–	2		–	–											
		Female Mean Length	–	580		–	779		–	858		–		–	823		–	–											
		SE	–	–		–	9		–	6		–		–	8		–	–											
		Range	–	–		–	690–920		–	705–945		–		–	815–830		–	–											
		n	–	1		–	28		–	85		–		–	2		–	–											

Appendix A23.–Yukon River Pilot Station sonar test fishery Chinook salmon variable mesh drift gillnet, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)																Total					
			2008		2007				2006				2005				2004				2003			
			(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)	
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
6/15–16, 19–20, 22, 24; 7/3 2.75" Mesh	8	Male	1	12.5	3	37.5	0	0.0	3	37.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	7	87.5
		Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	12.5	0	0.0	0	0.0	0	0.0	0	0.0	1	12.5
		Subtotal	1	12.5	3	37.5	0	0.0	3	37.5	0	0.0	1	12.5	0	0.0	0	0.0	0	0.0	0	0.0	8	100.0
	Male Mean Length		395		556		–		716		–		–		–		–		–		–			
	SE		–		19		–		16		–		–		–		–		–		–			
	Range		–		519–583		–		699–747		–		–		–		–		–		–			
	n		1		3		–		3		–		–		–		–		–		–			
	Female Mean Length		–		–		–		–		–		807		–		–		–		–			
	SE		–		–		–		–		–		–		–		–		–		–			
Range		–		–		–		–		–		–		–		–		–		–				
n		–		–		–		–		–		1		–		–		–		–				
6/5, 11–12, 16– 19, 21–22, 24– 26, 29; 7/3, 8, 10, 16, 21 4" Mesh	28	Male	1	3.6	5	17.9	0	0.0	15	53.6	0	0.0	4	14.3	0	0.0	0	0.0	0	0.0	0	0.0	25	89.3
		Female	0	0.0	0	0.0	0	0.0	1	3.6	0	0.0	2	7.1	0	0.0	0	0.0	0	0.0	0	0.0	3	10.7
		Subtotal	1	3.6	5	17.9	0	0.0	16	57.1	0	0.0	6	21.4	0	0.0	0	0.0	0	0.0	0	0.0	28	100.0
	Male Mean Length		351		525		–		679		–		806		–		–		–		–			
	SE		–		29		–		12		–		31		–		–		–		–			
	Range		–		434–615		–		586–765		–		720–860		–		–		–		–			
	n		1		5		–		15		–		4		–		–		–		–			
	Female Mean Length		–		–		–		710		–		889		–		–		–		–			
	SE		–		–		–		–		–		25		–		–		–		–			
Range		–		–		–		–		–		864–914		–		–		–		–				
n		–		–		–		1		–		2		–		–		–		–				

-continued-

Sample Dates	Sample Size		Brood Year (Age)																Total								
			2008		2007				2006				2005				2004				2003						
			(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)				
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%			
7/21–22, 31 5" Mesh	4	Male	0	0.0	1	25.0	0	0.0	3	75.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	100.0	
		Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	
		Subtotal	0	0.0	1	25.0	0	0.0	3	75.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	100.0	
		Male Mean Length		–		513	–		699	–		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
		SE		–		–	–		48	–		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
		Range		–		–	–		612–776	–		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
		n		–		1	–		3	–		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
		Female Mean Length		–		–	–		–	–		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
		SE		–		–	–		–	–		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
		Range		–		–	–		–	–		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
		n		–		–	–		–	–		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
6/7, 9, 13–14, 16–18, 20–21, 23, 25, 30; 7/3, 5, 8, 12 5.25" Mesh	24	Male	0	0.0	11	45.8	0	0.0	5	20.8	0	0.0	5	20.8	0	0.0	0	0.0	2	8.3	0	0.0	0	0.0	23	95.8	
		Female	0	0.0	0	0.0	0	0.0	1	4.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	4.2	
		Subtotal	0	0.0	11	45.8	0	0.0	6	25.0	0	0.0	5	20.8	0	0.0	0	0.0	2	8.3	0	0.0	0	0.0	24	100.0	
		Male Mean Length		–		536	–		613	–		815	–		–	–	–	–	795	–		–	–	–	–	–	
		SE		–		11	–		22	–		30	–		–	–	–	–	63	–		–	–	–	–	–	
		Range		–		482–590	–		560–670	–		704–880	–		–	–	–	–	732–857	–		–	–	–	–	–	
		n		–		11	–		5	–		5	–		–	–	–	–	2	–		–	–	–	–	–	
		Female Mean Length		–		–	–		710	–		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
		SE		–		–	–		–	–		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
		Range		–		–	–		–	–		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
		n		–		–	–		1	–		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	

-continued-

Sample Dates	Sample Size		Brood Year (Age)														Total				
			2008		2007		2006		2005		2004		2003								
			(1.1)		(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)	N	%					
			N	%	N	%	N	%	N	%	N	%	N	%	N	%					
7/21, 23, 26; 8/7 5.75" Mesh	4	Male	0	0.0	0	0.0	0	0.0	0	0.0	1	25.0	0	0.0	0	0.0	0	0.0	1	25.0	
		Female	0	0.0	1	25.0	0	0.0	0	0.0	2	50.0	0	0.0	0	0.0	0	0.0	3	75.0	
		Subtotal	0	0.0	1	25.0	0	0.0	0	0.0	3	75.0	0	0.0	0	0.0	0	0.0	4	100.0	
	Male Mean Length	—		—		—		800		—		—		—		—					
		SE	—		—		—		—		—		—		—		—				
		Range	—		—		—		—		—		—		—		—				
	n	—		—		—		1		—		—		—		—					
		Female Mean Length	—		562		—		823		—		—		—		—				
			SE	—		—		—		23		—		—		—		—			
	Range		—		—		—		800–846		—		—		—		—				
	n	—		1		—		2		—		—		—		—					
6/4, 6–14, 16–23 6.5" Mesh		106	Male	0	0.0	16	15.1	0	0.0	54	50.9	0	0.0	13	12.3	0	0.0	0	0.0	83	78.3
			Female	0	0.0	0	0.0	0	0.0	10	9.4	0	0.0	13	12.3	0	0.0	0	0.0	23	21.7
	Subtotal		0	0.0	16	15.1	0	0.0	64	60.4	0	0.0	26	24.5	0	0.0	0	0.0	106	100.0	
	Male Mean Length	—		576		—		696		823		—		—		—		—			
		SE	—		8		—		8		17		—		—		—		—		
		Range	—		493–624		—		595–805		715–901		—		—		—		—		
	n	—		16		—		54		13		—		—		—		—			
		Female Mean Length	—		—		—		715		857		—		—		—		—		
			SE	—		—		—		20		12		—		—		—		—	
	Range		—		—		—		603–799		770–922		—		—		—		—		
	n	—		—		—		10		13		—		—		—		—			

-continued-

Sample Dates	Sample Size		Brood Year (Age)																Total							
			2008		2007		2006		2005		2004		2003													
			(1.1)		(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)	N	%										
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%						
6/1, 4, 6–21 7.5" Mesh	227	Male	0	0.0	6	2.6	0	0.0	102	44.9	0	0.0	34	15.0	4	1.8	1	0.4	4	1.8	0	0.0	0	0.0	151	66.5
		Female	0	0.0	1	0.4	0	0.0	23	10.1	0	0.0	48	21.1	0	0.0	3	1.3	1	0.4	0	0.0	0	0.0	76	33.5
		Subtotal	0	0.0	7	3.1	0	0.0	125	55.1	0	0.0	82	36.1	4	1.8	4	1.8	5	2.2	0	0.0	0	0.0	227	100.0
		Male Mean Length	–		608	–		709	–		838	702		980		807	–		–							
		SE	–		21	–		4	–		8	23	–		25	–		–								
		Range	–		531–689	–		592–813	–		672–910	645–760	–		762–870	–		–								
		n	–		6	–		102	–		34	4		1	4	–		–								
		Female Mean Length	–		546	–		746	–		848	–		919		862	–		–							
		SE	–		–	–		10	–		8	–		32	–	–	–		–							
		Range	–		–	–		670–858	–		742–951	–		870–980	–	–	–		–							
		n	–		1	–		23	–		48	–		3	1	–		–	–							
6/5–8, 11–12, 14–25 8.5" Mesh	85	Male	0	0.0	1	1.2	0	0.0	33	38.8	0	0.0	15	17.6	2	2.4	1	1.2	0	0.0	0	0.0	0	0.0	52	61.2
		Female	0	0.0	0	0.0	0	0.0	14	16.5	0	0.0	18	21.2	0	0.0	0	0.0	1	1.2	0	0.0	0	0.0	33	38.8
		Subtotal	0	0.0	1	1.2	0	0.0	47	55.3	0	0.0	33	38.8	2	2.4	1	1.2	1	1.2	0	0.0	0	0.0	85	100.0
		Male Mean Length	–		478	–		720	–		837	755		850		–	–	–	–							
		SE	–		–	–		12	–		14	11	–		–	–	–	–	–							
		Range	–		–	–		505–832	–		754–949	744–765	–		–	–	–	–	–							
		n	–		1	–		33	–		15	2		1	–	–	–	–	–							
		Female Mean Length	–		–	–		764	–		832	–		–		820	–		–							
		SE	–		–	–		9	–		8	–		–	–	–	–	–	–							
		Range	–		–	–		697–841	–		768–904	–		–	–	–	–	–	–							
		n	–		–	–		14	–		18	–		–	1	–	–	–	–							

-continued-

Sample Dates	Sample Size		Brood Year (Age)																Total							
			2008		2007				2006				2005				2004				2003					
			(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)			
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
All Mesh	486	Male	2	0.4	43	8.8	0	0.0	215	44.2	0	0.0	72	14.8	6	1.2	2	0.4	6	1.2	0	0.0	0	0.0	346	71.2
		Female	0	0.0	2	0.4	0	0.0	49	10.1	0	0.0	84	17.3	0	0.0	3	0.6	2	0.4	0	0.0	0	0.0	140	28.8
		Total	2	0.4	45	9.3	0	0.0	264	54.3	0	0.0	156	32.1	6	1.2	5	1.0	8	1.6	0	0.0	0	0.0	486	100.0
		Male Mean Length	373		559		–	703		–	831		719		915		803		–	–						
		SE	22		7		–	4		–	6		19		65		23		–	–						
		Range	351–395		434–689		–	505–832		–	672–949		645–765		850–980		732–870		–	–						
		n	2		43		–	215		–	72		6		2		6		–	–						
		Female Mean Length	–		554		–	743		–	846		–		919		841		–	–						
		SE	–		8		–	7		–	5		–		32		21		–	–						
		Range	–		546–562		–	603–858		–	742–951		–		870–980		820–862		–	–						
		n	–		2		–	49		–	84		–		3		2		–	–						

Appendix A24.–Yukon River Eagle sonar test fishery Chinook salmon variable mesh drift gillnet, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)																Total							
			2008		2007		2006		2005		2004		2003													
			(1.1)		(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)	N	%										
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%						
7/10, 14–16, 18, 20, 22–24, 26– 28, 31–8/2, 4–6	104	Male	0	0.0	8	7.7	0	0.0	31	29.8	0	0.0	18	17.3	2	1.9	2	1.9	2	1.9	0	0.0	0	0.0	63	60.6
		Female	0	0.0	0	0.0	0	0.0	5	4.8	0	0.0	31	29.8	1	1.0	0	0.0	4	3.8	0	0.0	0	0.0	41	39.4
		Subtotal	0	0.0	8	7.7	0	0.0	36	34.6	0	0.0	49	47.1	3	2.9	2	1.9	6	5.8	0	0.0	0	0.0	104	100.0
5.25" Mesh		Male Mean Length	–		584	–		692	–		861	720		903	825	–	–									
		SE	–		12	–		8	–		12	30		48	35	–	–									
		Range	–		520–625	–		570–780	–		780–965	690–750		855–950	790–860	–	–									
		n	–		8	–		31	–		18	2		2	2	–	–									
		Female Mean Length	–		–	–		704	–		860	650		–	810	–	–									
		SE	–		–	–		29	–		9	–		–	6	–	–									
		Range	–		–	–		620–790	–		765–970	–		–	800–825	–	–									
		n	–		–	–		5	–		31	1		–	4	–	–									
18, 20–22, 24– 26, 28, 30–31; 8/2, 7, 12	111	Male	0	0.0	0	0.0	0	0.0	25	22.5	0	0.0	26	23.4	1	0.9	0	0.0	0	0.0	0	0.0	0	0.0	52	46.8
		Female	0	0.0	1	0.9	0	0.0	11	9.9	0	0.0	39	35.1	0	0.0	3	2.7	5	4.5	0	0.0	0	0.0	59	53.2
		Subtotal	0	0.0	1	0.9	0	0.0	36	32.4	0	0.0	65	58.6	1	0.9	3	2.7	5	4.5	0	0.0	0	0.0	111	100.0
6.5" Mesh		Male Mean Length	–		–	–		704	–		858	690		–	–	–	–									
		SE	–		–	–		9	–		12	–		–	–	–	–									
		Range	–		–	–		620–775	–		745–970	–		–	–	–	–									
		n	–		–	–		25	–		26	1		–	–	–	–									
		Female Mean Length	–		575	–		721	–		845	–		882	841	–	–									
		SE	–		–	–		12	–		8	–		19	24	–	–									
		Range	–		–	–		645–800	–		735–955	–		845–910	790–900	–	–									
		n	–		1	–		11	–		39	–		3	5	–	–									

-continued-



Sample Dates	Sample Size		Brood Year (Age)																Total								
			2008		2007		2006		2005		2004		2003														
			(1.1)		(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)	N	%											
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%									
7/8–9, 11–12, 15–17, 19–21, 23–25, 27–28, 30; 8/1–2 7.5" Mesh	105	Male	0	0.0	0	0.0	0	0.0	22	21.0	0	0.0	21	20.0	1	1.0	1	1.0	3	2.9	0	0.0	0	0.0	48	45.7	
		Female	0	0.0	0	0.0	0	0.0	5	4.8	0	0.0	48	45.7	0	0.0	1	1.0	3	2.9	0	0.0	0	0.0	57	54.3	
		Subtotal	0	0.0	0	0.0	0	0.0	27	25.7	0	0.0	69	65.7	1	1.0	2	1.9	6	5.7	0	0.0	0	0.0	105	100.0	
		Male Mean Length	–		–		–		729		–		863		660		880		847		–		–				
		SE	–		–		–		7		–		18		–		–		15		–		–				
		Range	–		–		–		665–775		–		730–1005		–		–		820–870		–		–				
		n	–		–		–		22		–		21		1		1		3		–		–				
		Female Mean Length	–		–		–		727		–		871		–		840		835		–		–				
		SE	–		–		–		23		–		6		–		–		26		–		–				
		Range	–		–		–		640–770		–		770–996		–		–		800–885		–		–				
		n	–		–		–		5		–		48		–		1		3		–		–				
	7/9–11, 13–15, 17–19, 21–23, 25–27, 30–8/1 8.5" Mesh	96	Male	0	0.0	0	0.0	0	0.0	18	18.8	0	0.0	20	20.8	1	1.0	0	0.0	2	2.1	0	0.0	0	0.0	41	42.7
			Female	0	0.0	0	0.0	0	0.0	6	6.3	0	0.0	42	43.8	0	0.0	0	0.0	7	7.3	0	0.0	0	0.0	55	57.3
			Subtotal	0	0.0	0	0.0	0	0.0	24	25.0	0	0.0	62	64.6	1	1.0	0	0.0	9	9.4	0	0.0	0	0.0	96	100.0
		Male Mean Length	–		–		–		712		–		869		760		–		870		–		–				
		SE	–		–		–		11		–		16		–		–		0		–		–				
		Range	–		–		–		640–825		–		750–1020		–		–		870–870		–		–				
		n	–		–		–		18		–		20		1		–		2		–		–				
		Female Mean Length	–		–		–		734		–		875		–		–		856		–		–				
		SE	–		–		–		20		–		7		–		–		13		–		–				
		Range	–		–		–		680–810		–		780–980		–		–		815–915		–		–				
		n	–		–		–		6		–		42		–		–		7		–		–				

-continued-

Sample Dates	Sample Size		Brood Year (Age)																		Total					
			2008		2007		2006		2005		2004		2003													
			(1.1)		(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)												
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%								
All Mesh	416	Male	0	0.0	8	1.9	0	0.0	96	23.1	0	0.0	85	20.4	5	1.2	3	0.7	7	1.7	0	0.0	0	0.0	204	49.0
		Female	0	0.0	1	0.2	0	0.0	27	6.5	0	0.0	160	38.5	1	0.2	4	1.0	19	4.6	0	0.0	0	0.0	212	51.0
		Total	0	0.0	9	2.2	0	0.0	123	29.6	0	0.0	245	58.9	6	1.4	7	1.7	26	6.3	0	0.0	0	0.0	416	100.0
	Male Mean Length	–		584	–		707	–		862	710	895	847	–	–											
		SE	–		12	–		5	–		7	19	28	12	–	–										
		Range	–		520–625	–		570–825	–		730–1020	660–760	855–950	790–870	–	–										
	Female Mean Length	–		8	–		96	–		85	5	3	7	–	–											
		SE	–		8	–		96	–		85	5	3	7	–	–										
		Range	–		8	–		96	–		85	5	3	7	–	–										
	Female Mean Length	–		575	–		722	–		864	650	871	839	–	–											
		SE	–		–	–		9	–		4	–	17	9	–	–										
Range		–		–	–		620–810	–		735–996	–	840–910	790–915	–	–											
	n	–		1	–		27	–		160	1	4	19	–	–											

Appendix A25.—Andreafsky River (East Fork) weir Chinook salmon escapement, age and sex composition, and mean length (mm), 2011.

Sample Dates (Strata Dates)		Sample Size		Brood Year (Age)																Total				
				2008		2007		2006		2005		2004		2003										
				(1.1)		(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)									
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%				
6/25–27, 29–7/7 (6/20–7/8)	168	Male	0	0.0	388	39.9	0	0.0	371	38.1	0	0.0	23	2.4	6	0.6	0	0.0	0	0.0	788	81.0		
		Female	0	0.0	6	0.6	0	0.0	145	14.9	0	0.0	35	3.6	0	0.0	0	0.0	0	0.0	186	19.0		
		Subtotal	0	0.0	394	40.5	0	0.0	516	53.0	0	0.0	58	6.0	6	0.6	0	0.0	0	0.0	974	100.0		
		Male Mean Length	–		517	–	668	–	824	635	–	–	–	–										
		SE	–		5	–	7	–	18	–	–	–	–	–										
		Range	–		360–605	–	505–785	–	780–860	–	–	–	–	–										
		n	–		67	–	64	–	4	1	–	–	–	–										
		Female Mean Length	–		555	–	705	–	814	–	–	–	–	–										
		SE	–		–	–	13	–	23	–	–	–	–	–										
		Range	–		–	–	570–870	–	755–905	–	–	–	–	–										
		n	–		1	–	25	–	6	–	–	–	–	–										
		7/10–11, 14 (7/9–14)	78	Male	0	0.0	769	47.4	0	0.0	499	30.8	0	0.0	42	2.6	0	0.0	0	0.0	0	0.0	1,310	80.8
				Female	0	0.0	21	1.3	0	0.0	146	9.0	0	0.0	146	9.0	0	0.0	0	0.0	0	0.0	312	19.2
				Subtotal	0	0.0	790	48.7	0	0.0	645	39.7	0	0.0	187	11.5	0	0.0	0	0.0	0	0.0	1,622	100.0
Male Mean Length	–				529	–	669	–	815	–	–	–	–	–										
SE	–				7	–	10	–	45	–	–	–	–	–										
Range	–				465–620	–	595–765	–	770–860	–	–	–	–	–										
n	–				37	–	24	–	2	–	–	–	–	–										
Female Mean Length	–				500	–	700	–	826	–	–	–	–	–										
SE	–				–	–	28	–	22	–	–	–	–	–										
Range	–				–	–	570–765	–	755–915	–	–	–	–	–										
n	–				1	–	7	–	7	–	–	–	–	–										

-continued-

Sample Dates    Sample (Strata Dates)    Size			Brood Year (Age)																Total			
			2008		2007		2006		2005		2004		2003									
			(1.1)		(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)								
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%				
7/15, 17–19 (7/15–19)	155	Male	0	0.0	424	34.2	0	0.0	464	37.4	0	0.0	88	7.1	0	0.0	0	0.0	0	0.0	977	78.7
		Female	0	0.0	16	1.3	0	0.0	48	3.9	0	0.0	200	16.1	0	0.0	0	0.0	0	0.0	264	21.3
		Subtotal	0	0.0	440	35.5	0	0.0	512	41.3	0	0.0	288	23.2	0	0.0	0	0.0	0	0.0	1,241	100.0
	Male Mean Length	–		523	–	675	–	812	–	–	–	–	–	–	–	–	–	–	–	–	–	
		SE	–		6	–	6	–	18	–	–	–	–	–	–	–	–	–	–	–	–	
		Range	–		420–650	–	570–795	–	740–945	–	–	–	–	–	–	–	–	–	–	–	–	
		n	–		53	–	58	–	11	–	–	–	–	–	–	–	–	–	–	–	–	
	Female Mean Length	–		513	–	729	–	827	–	–	–	–	–	–	–	–	–	–	–	–	–	
		SE	–		38	–	15	–	11	–	–	–	–	–	–	–	–	–	–	–	–	
		Range	–		475–550	–	660–760	–	705–955	–	–	–	–	–	–	–	–	–	–	–	–	
		n	–		2	–	6	–	25	–	–	–	–	–	–	–	–	–	–	–	–	
	7/20–21, 24–29 (7/20–30)	141	Male	0	0.0	751	54.6	0	0.0	332	24.1	0	0.0	20	1.4	0	0.0	0	0.0	0	0.0	1,103
Female			0	0.0	0	0.0	0	0.0	59	4.3	0	0.0	205	14.9	0	0.0	10	0.7	0	0.0	273	19.9
Subtotal			0	0.0	751	54.6	0	0.0	390	28.4	0	0.0	224	16.3	0	0.0	10	0.7	0	0.0	1,376	100.0
Male Mean Length		–		518	–	690	–	793	–	–	–	–	–	–	–	–	–	–	–	–	–	
		SE	–		5	–	11	–	38	–	–	–	–	–	–	–	–	–	–	–	–	
		Range	–		420–595	–	570–825	–	755–830	–	–	–	–	–	–	–	–	–	–	–	–	
		n	–		77	–	34	–	2	–	–	–	–	–	–	–	–	–	–	–	–	
Female Mean Length		–		–	–	793	–	837	–	900	–	–	–	–	–	–	–	–	–	–	–	
		SE	–		–	–	15	–	12	–	–	–	–	–	–	–	–	–	–	–	–	
		Range	–		–	–	725–830	–	745–945	–	–	–	–	–	–	–	–	–	–	–	–	
		n	–		–	–	6	–	21	–	1	–	–	–	–	–	–	–	–	–	–	

-continued-

		Brood Year (Age)																								
Sample		2008		2007				2006				2005				2004				2003						
Dates	Sample	(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total		
(Strata Dates)	Size	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Season	542	Male	0	0.0	2,334	44.8	0	0.0	1,666	32.0	0	0.0	172	3.3	6	0.1	0	0.0	0	0.0	0	0.0	0	0.0	4,178	80.1
		Female	0	0.0	43	0.8	0	0.0	397	7.6	0	0.0	585	11.2	0	0.0	10	0.2	0	0.0	0	0.0	0	0.0	1,035	19.9
		Total	0	0.0	2,376	45.6	0	0.0	2,063	39.6	0	0.0	758	14.5	6	0.1	10	0.2	0	0.0	0	0.0	0	0.0	5,213	100.0
	Male Mean Length		–		522		–		676		–		810	635			–	–			–	–				
	SE		–		3		–		5		–		18	–			–	–			–	–				
	Range		–		360–650		–		505–825		–		740–945	–			–	–			–	–				
	n		–		234		–		180		–		19	1			–	–			–	–				
	Female Mean Length		–		518		–		732		–		827	–			900	–			–	–				
	SE		–		38		–		11		–		9	–			–	–			–	–				
	Range		–		475–555		–		570–870		–		705–955	–			–	–			–	–				
n		–		4		–		44		–		59	–			1	–			–	–					

Appendix A26.—Andreafsky River (East Fork) carcass survey Chinook salmon escapement, age and sex composition, and mean length (mm), 2011.

Sample Dates		Sample Size		Brood Year (Age)																Total		
				2008		2007		2006		2005		2004		2003								
				(1.1)		(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)							
				N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
8/3–4, 7–11 Total	28	Male	0	0.0	9	32.1	0	0.0	13	46.4	0	0.0	4	14.3	0	0.0	0	0.0	0	0.0	26	92.9
		Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	7.1	0	0.0	0	0.0	0	0.0	2	7.1
		Total	0	0.0	9	32.1	0	0.0	13	46.4	0	0.0	6	21.4	0	0.0	0	0.0	0	0.0	28	100.0
		Male Mean Length	–		548	–		706	–		793	–		–	–		–	–				
		SE	–		22	–		13	–		24	–		–	–		–	–				
		Range	–		460–670	–		630–780	–		750–856	–		–	–		–	–				
		n	–		9	–		13	–		4	–		–	–		–	–				
		Female Mean Length	–		–	–		–	–		808	–		–	–		–	–				
		SE	–		–	–		–	–		23	–		–	–		–	–				
		Range	–		–	–		–	–		785–830	–		–	–		–	–				
		n	–		–	–		–	–		2	–		–	–		–	–				

Appendix A27.—Anvik River Chinook salmon escapement, age and sex composition, and mean length (mm), 2011.

Sample Dates (Gear)		Sample Size	Brood Year (Age)																Total			
			2008		2007		2006		2005		2004		2003									
			(1.1)		(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)								
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%				
7/11, 13 (Beach Seine)	5	Male	0	0.0	1	20.0	0	0.0	2	40.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	60.0
		Female	0	0.0	0	0.0	0	0.0	1	20.0	0	0.0	1	20.0	0	0.0	0	0.0	0	0.0	2	40.0
		Subtotal	0	0.0	1	20.0	0	0.0	3	60.0	0	0.0	1	20.0	0	0.0	0	0.0	0	0.0	5	100.0
		Male Mean Length	—		510	—		745	—		—	—	—	—	—	—	—	—	—			
		SE	—		—	—		25	—		—	—	—	—	—	—	—	—	—			
		Range	—		—	—		720–770	—		—	—	—	—	—	—	—	—	—			
		n	—		1	—		2	—		—	—	—	—	—	—	—	—	—			
		Female Mean Length	—		—	—		760	—		860	—	—	—	—	—	—	—	—			
		SE	—		—	—		—	—		—	—	—	—	—	—	—	—	—			
		Range	—		—	—		—	—		—	—	—	—	—	—	—	—	—			
		n	—		—	—		1	—		1	—	—	—	—	—	—	—	—			
8/3–10 (Carcass)	236	Male	0	0.0	40	16.9	0	0.0	121	51.3	0	0.0	14	5.9	0	0.0	0	0.0	0	0.0	175	74.2
		Female	0	0.0	0	0.0	0	0.0	13	5.5	0	0.0	47	19.9	0	0.0	0	0.0	1	0.4	61	25.8
		Subtotal	0	0.0	40	16.9	0	0.0	134	56.8	0	0.0	61	25.8	0	0.0	0	0.0	1	0.4	236	100.0
		Male Mean Length	—		554	—		702	—		794	—	—	—	—	—	—	—	—	—		
		SE	—		6	—		4	—		8	—	—	—	—	—	—	—	—			
		Range	—		465–645	—		540–815	—		755–850	—	—	—	—	—	—	—	—			
		n	—		40	—		121	—		14	—	—	—	—	—	—	—	—			
		Female Mean Length	—		—	—		765	—		832	—	—	840	—	—	—	—	—			
		SE	—		—	—		8	—		7	—	—	—	—	—	—	—	—			
		Range	—		—	—		715–815	—		680–955	—	—	—	—	—	—	—	—			
		n	—		—	—		13	—		47	—	—	1	—	—	—	—	—			

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Sample Dates (Gear)		Sample Size		Brood Year (Age)																				Total			
				2008		2007				2006				2005				2004				2003					
				(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)				(2.5)	
				N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%			N	%
All Gear	241	Male	0	0.0	41	17.0	0	0.0	123	51.0	0	0.0	14	5.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	178	73.9	
		Female	0	0.0	0	0.0	0	0.0	14	5.8	0	0.0	48	19.9	0	0.0	0	0.0	1	0.4	0	0.0	0	0.0	63	26.1	
		Total	0	0.0	41	17.0	0	0.0	137	56.8	0	0.0	62	25.7	0	0.0	0	0.0	1	0.4	0	0.0	0	0.0	241	100.0	
		Male Mean Length	–		553	–		703	–		794	–		–	–		–	–		–	–						
		SE	–		6	–		4	–		8	–		–	–		–	–		–	–						
		Range	–		465–645	–		540–815	–		755–850	–		–	–		–	–		–	–						
		n	–		41	–		123	–		14	–		–	–		–	–		–	–						
		Female Mean Length	–		–	–		765	–		833	–		–	–		840			–	–						
		SE	–		–	–		8	–		7	–		–	–		–	–		–	–						
		Range	–		–	–		715–815	–		680–955	–		–	–		–	–		–	–						
		n	–		–	–		14	–		48	–		–	–		1			–	–						



Appendix A28.—Chena River carcass survey Chinook salmon, age and sex composition, and mean length (mm), 2011.

		Brood Year (Age)																								
		2008		2007				2006				2005				2004				2003						
Sample	Sample	(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total		
Dates	Size	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
8/1–5 stratum 1	228	Male	0	0.0	60	26.3	0	0.0	103	45.2	0	0.0	10	4.4	0	0.0	0	0.0	1	0.4	0	0.0	0	0.0	174	76.3
		Female	0	0.0	0	0.0	0	0.0	20	8.8	0	0.0	32	14.0	0	0.0	1	0.4	1	0.4	0	0.0	0	0.0	54	23.7
		Subtotal	0	0.0	60	26.3	0	0.0	123	53.9	0	0.0	42	18.4	0	0.0	1	0.4	2	0.9	0	0.0	0	0.0	228	100.0
	Male Mean Length		–		563		–		698		–		797		–		–		705		–		–			
	SE		–		5		–		4		–		25		–		–		–		–		–			
	Range		–		420–660		–		570–775		–		700–940		–		–		–		–		–			
	n		–		60		–		103		–		10		–		–		1		–		–			
	Female Mean Length		–		–		–		728		–		851		–		860		885		–		–			
	SE		–		–		–		10		–		8		–		–		–		–		–			
	Range		–		–		–		620–830		–		775–940		–		–		–		–		–			
n		–		–		–		20		–		32		–		1		1		–		–				
8/8–11 stratum 2	197	Male	1	0.5	36	18.3	0	0.0	58	29.4	1	0.5	20	10.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	116	58.9
		Female	0	0.0	0	0.0	0	0.0	17	8.6	0	0.0	60	30.5	0	0.0	3	1.5	1	0.5	0	0.0	0	0.0	81	41.1
		Subtotal	1	0.5	36	18.3	0	0.0	75	38.1	1	0.5	80	40.6	0	0.0	3	1.5	1	0.5	0	0.0	0	0.0	197	100.0
	Male Mean Length		335		554		–		707		600		869		–		–		–		–		–			
	SE		–		8		–		6		–		17		–		–		–		–		–			
	Range		–		420–650		–		595–775		–		660–985		–		–		–		–		–			
	n		1		36		–		58		1		20		–		–		–		–		–			
	Female Mean Length		–		–		–		743		–		849		–		845		820		–		–			
	SE		–		–		–		8		–		6		–		22		–		–		–			
	Range		–		–		–		660–780		–		730–930		–		810–885		–		–		–			
n		–		–		–		17		–		60		–		3		1		–		–				

-continued-

		Brood Year (Age)																				Total		
		2008		2007				2006				2005				2004				2003				
Sample	Sample	(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		
Dates	Size	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Total	425	Male	1	0.2	96	22.6	0	0.0	161	37.9	1	0.2	30	7.1	0	0.0	0	0.0	1	0.2	0	0.0	0	0.0
		Female	0	0.0	0	0.0	0	0.0	37	8.7	0	0.0	92	21.6	0	0.0	4	0.9	2	0.5	0	0.0	0	0.0
		Total	1	0.2	96	22.6	0	0.0	198	46.6	1	0.2	122	28.7	0	0.0	4	0.9	3	0.7	0	0.0	0	0.0
	Male Mean Length	335		559		—		701		600		845		—		—		705		—		—		
	SE	—		5		—		3		—		15		—		—		—		—		—		
	Range	—		420–660		—		570–775		—		660–985		—		—		—		—		—		
	n	1		96		—		161		1		30		—		—		1		—		—		
	Female Mean Length	—		—		—		735		—		850		—		849		853		—		—		
	SE	—		—		—		7		—		5		—		16		33		—		—		
	Range	—		—		—		620–830		—		730–940		—		810–885		820–885		—		—		
	n	—		—		—		37		—		92		—		4		2		—		—		

Appendix A29.—Gisasa River weir Chinook salmon escapement, age and sex composition, and mean length (mm), 2011.

Sample Dates (Strata Dates)		Sample Size	Brood Year (Age)																		Total	
			2008		2007		2006		2005		2004		2003									
			(1.1)		(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)								
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
6/26–7/7 (6/18–7/8)	218	Male	0	0.0	170	26.1	0	0.0	316	48.6	0	0.0	12	1.8	3	0.5	0	0.0	0	0.0	500	77.1
		Female	0	0.0	15	2.3	0	0.0	89	13.8	0	0.0	45	6.9	0	0.0	0	0.0	0	0.0	149	22.9
		Subtotal	0	0.0	185	28.4	0	0.0	405	62.4	0	0.0	57	8.7	3	0.5	0	0.0	0	0.0	649	100.0
		Male Mean Length	–		529	–		672	–		835	605	–	–	–	–						
		SE	–		6	–		5	–		26	–	–	–	–	–						
		Range	–		395–650	–		550–795	–		800–910	–	–	–	–	–						
		n	–		57	–		106	–		4	1	–	–	–	–						
		Female Mean Length	–		562	–		693	–		834	–	–	–	–	–						
		SE	–		2	–		10	–		10	–	–	–	–	–						
		Range	–		560–570	–		600–830	–		765–890	–	–	–	–	–						
		n	–		5	–		30	–		15	–	–	–	–	–						
7/10–12 (7/9–12)	109	Male	0	0.0	202	33.9	0	0.0	322	54.1	0	0.0	16	2.8	0	0.0	0	0.0	0	0.0	540	90.8
		Female	0	0.0	0	0.0	0	0.0	11	1.8	0	0.0	44	7.3	0	0.0	0	0.0	0	0.0	54	9.2
		Subtotal	0	0.0	202	33.9	0	0.0	332	56.0	0	0.0	60	10.1	0	0.0	0	0.0	0	0.0	594	100.0
		Male Mean Length	–		535	–		683	–		822	–	–	–	–	–						
		SE	–		8	–		7	–		34	–	–	–	–	–						
		Range	–		445–660	–		545–830	–		755–870	–	–	–	–	–						
		n	–		37	–		59	–		3	–	–	–	–	–						
		Female Mean Length	–		–	–		805	–		846	–	–	–	–	–						
		SE	–		–	–		40	–		20	–	–	–	–	–						
		Range	–		–	–		765–845	–		770–940	–	–	–	–	–						
		n	–		–	–		2	–		8	–	–	–	–	–						

-continued-

Sample Dates    Sample (Strata Dates)    Size		Brood Year (Age)																Total						
		2008		2007				2006				2005				2004				2003				
		(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
7/13, 17, 18 (7/13–18)	104	Male	0	0.0	174	23.1	0	0.0	414	54.8	7	1.0	0	0.0	0	0.0	0	0.0	0	0.0	7	1.0	603	79.8
		Female	0	0.0	0	0.0	0	0.0	44	5.8	0	0.0	102	13.5	0	0.0	7	1.0	0	0.0	0	0.0	152	20.2
		Subtotal	0	0.0	174	23.1	0	0.0	457	60.6	7	1.0	102	13.5	0	0.0	7	1.0	0	0.0	7	1.0	755	100.0
	Male Mean Length		–	540		–	695		650	–	–		–	–		–	–		–	910				
	SE		–	9		–	7		–	–		–	–		–	–		–	–					
	Range		–	460–625		–	595–860		–	–		–	–		–	–		–	–					
	n		–	24		–	57		1	–		–	–		–	–		–	1					
	Female Mean Length		–	–		–	761		–	845		–	910		–	–		–	–					
	SE		–	–		–	19		–	8		–	–		–	–		–	–					
	Range		–	–		–	685–820		–	780–900		–	–		–	–		–	–					
n		–	–		–	6		–	14		–	1		–	–		–	–						
7/19–20, 24–30 (7/19–30)	166	Male	0	0.0	251	36.1	8	1.2	284	41.0	4	0.6	13	1.8	4	0.6	0	0.0	0	0.0	0	0.0	564	81.3
		Female	0	0.0	0	0.0	0	0.0	38	5.4	0	0.0	92	13.3	0	0.0	0	0.0	0	0.0	0	0.0	130	18.7
		Subtotal	0	0.0	251	36.1	8	1.2	322	46.4	4	0.6	105	15.1	4	0.6	0	0.0	0	0.0	0	0.0	694	100.0
	Male Mean Length		–	519		385	697		640	792		725	–		–	–		–	–					
	SE		–	7		25	7		–	23		–	–		–	–		–	–					
	Range		–	425–640		360–410	575–820		–	750–830		–	–		–	–		–	–					
	n		–	60		2	68		1	3		1	–		–	–		–	–					
	Female Mean Length		–	–		–	789		–	843		–	–		–	–		–	–					
	SE		–	–		–	16		–	11		–	–		–	–		–	–					
	Range		–	–		–	680–840		–	760–990		–	–		–	–		–	–					
n		–	–		–	9		–	22		–	–		–	–		–	–						

-continued-

		Brood Year (Age)																	
Sample		2008		2007		2006		2005		2004		2003						Total	
Dates	Sample	(1.1)		(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)					N	%
(Strata Dates)	Size	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Season	597	Male	0 0.0	796 29.6	8 0.3	1,335 49.6	11 0.4	41 1.5	7 0.3	0 0.0	0 0.0	0 0.0	7 0.3	2,207	82.0				
		Female	0 0.0	15 0.6	0 0.0	181 6.7	0 0.0	282 10.5	0 0.0	7 0.3	0 0.0	0 0.0	0 0.0	485	18.0				
		Total	0 0.0	811 30.1	8 0.3	1,517 56.3	11 0.4	323 12.0	7 0.3	7 0.3	0 0.0	0 0.0	7 0.3	2,692	100.0				
		Male Mean Length	–	531	385	687	645	815	667	–	–	–	910						
		SE	–	4	25	3	–	16	–	–	–	–	–						
		Range	–	395–660	360–410	545–860	640–650	750–910	–	–	–	–	–						
		n	–	178	2	290	2	10	2	–	–	–	1						
		Female Mean Length	–	562	–	762	–	842	–	910	–	–	–						
		SE	–	2	–	11	–	6	–	–	–	–	–						
		Range	–	560–570	–	600–845	–	760–990	–	–	–	–	–						
		n	–	5	–	47	–	59	–	1	–	–	–						

Appendix A30.–Henshaw Creek weir Chinook salmon escapement, age and sex composition, and mean length (mm), 2011.

Sample Dates (Strata Dates)		Sample Size	Brood Year (Age)																Total	
			2008		2007		2006		2005		2004		2003							
			(1.1)		(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)	N	%				
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
7/4–10 (6/24–7/10)	106	Male	0	0.0	62	17.9	0	0.0	194	55.7	0	0.0	23	6.6	0	0.0	0	0.0	279	80.2
		Female	0	0.0	10	2.8	0	0.0	46	13.2	0	0.0	10	2.8	3	0.9	0	0.0	69	19.8
		Subtotal	0	0.0	72	20.8	0	0.0	240	68.9	0	0.0	33	9.4	3	0.9	0	0.0	348	100.0
		Male Mean Length	–		539	–		698	–		847	–		–	–	–	–			
		SE	–		13	–		7	–		18	–		–	–	–	–			
		Range	–		455–640	–		550–810	–		780–930	–		–	–	–	–			
		n	–		19	–		59	–		7	–		–	–	–	–			
		Female Mean Length	–		472	–		709	–		845	700	–	–	–	–	–			
		SE	–		37	–		24	–		23	–	–	–	–	–	–			
		Range	–		430–545	–		530–820	–		820–890	–	–	–	–	–	–			
		n	–		3	–		14	–		3	1	–	–	–	–	–			
7/11–14 (7/11–14)	109	Male	0	0.0	68	16.5	0	0.0	185	45.0	0	0.0	15	3.7	0	0.0	0	0.0	268	65.1
		Female	0	0.0	0	0.0	0	0.0	49	11.9	0	0.0	91	22.0	0	0.0	0	0.0	144	34.9
		Subtotal	0	0.0	68	16.5	0	0.0	234	56.9	0	0.0	106	25.7	0	0.0	0	0.0	412	100.0
		Male Mean Length	–		544	–		694	–		861	–	–	–	–	–	–			
		SE	–		8	–		7	–		30	–	–	–	–	–	–			
		Range	–		470–625	–		545–815	–		785–910	–	–	–	–	–	–			
		n	–		18	–		49	–		4	–	–	–	–	–	–			
		Female Mean Length	–		–	–		739	–		848	–	–	840	–	–	–			
		SE	–		–	–		15	–		10	–	–	–	–	–	–			
		Range	–		–	–		645–860	–		755–950	–	–	–	–	–	–			
		n	–		–	–		13	–		24	–	–	1	–	–	–			

-continued-

Sample Dates    Sample (Strata Dates)    Size		Brood Year (Age)																Total				
		2008		2007			2006			2005			2004			2003						
		(1.1)		(1.2)		(2.1)	(1.3)		(2.2)	(1.4)		(2.3)	(1.5)		(2.4)	(1.6)		(2.5)				
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
7/15, 17–21 (7/15–21)	116	Male	0	0.0	135	21.6	0	0.0	205	32.8	0	0.0	27	4.3	0	0.0	0	0.0	0	0.0	367	58.6
		Female	0	0.0	0	0.0	0	0.0	38	6.0	0	0.0	221	35.3	0	0.0	0	0.0	0	0.0	259	41.4
		Subtotal	0	0.0	135	21.6	0	0.0	243	38.8	0	0.0	248	39.7	0	0.0	0	0.0	0	0.0	626	100.0
	Male Mean Length		–		515		–		704		–		810		–		–		–			
	SE		–		8		–		8		–		32		–		–		–			
	Range		–		450–615		–		570–785		–		700–880		–		–		–			
	n		–		25		–		38		–		5		–		–		–			
	Female Mean Length		–		–		–		751		–		852		–		–		–			
	SE		–		–		–		22		–		6		–		–		–			
	Range		–		–		–		680–830		–		780–960		–		–		–			
n		–		–		–		7		–		41		–		–		–				
7/22–30; 8/1–2 (7/22–8/2)	97	Male	4	1.0	97	23.7	0	0.0	127	30.9	0	0.0	25	6.2	0	0.0	0	0.0	0	0.0	254	61.9
		Female	0	0.0	0	0.0	0	0.0	8	2.1	0	0.0	144	35.1	0	0.0	4	1.0	0	0.0	156	38.1
		Subtotal	4	1.0	97	23.7	0	0.0	135	33.0	0	0.0	169	41.2	0	0.0	4	1.0	0	0.0	410	100.0
	Male Mean Length		515		515		–		690		–		831		–		–		–			
	SE		–		13		–		9		–		34		–		–		–			
	Range		–		360–590		–		610–805		–		730–925		–		–		–			
	n		1		23		–		30		–		6		–		–		–			
	Female Mean Length		–		–		–		745		–		850		–		905		–			
	SE		–		–		–		35		–		8		–		–		–			
	Range		–		–		–		710–780		–		760–960		–		–		–			
n		–		–		–		2		–		34		–		1		–				

-continued-

		Brood Year (Age)																								
Sample		2008		2007				2006				2005				2004				2003						
Dates	Sample	(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total		
(Strata Dates)	Size	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Season	428	Male	4	0.2	363	20.2	0	0.0	711	39.6	0	0.0	90	5.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1,168	65.0
		Female	0	0.0	10	0.5	0	0.0	141	7.9	0	0.0	466	25.9	3	0.2	4	0.2	4	0.2	0	0.0	0	0.0	628	35.0
		Total	4	0.2	372	20.7	0	0.0	852	47.4	0	0.0	556	31.0	3	0.2	4	0.2	4	0.2	0	0.0	0	0.0	1,796	100.0
		Male Mean Length	515		526		–		697		–		834		–		–	–	–		–	–				
		SE	–		5		–		4		–		16		–		–	–	–		–	–				
		Range	–		360–640		–		545–815		–		700–930		–		–	–	–		–	–				
		n	1		85		–		176		–		22		–		–	–	–		–	–				
		Female Mean Length	–		472		–		739		–		849	700	905	840				–	–					
		SE	–		37		–		12		–		6	–	–	–				–	–					
		Range	–		430–545		–		530–860		–		755–960	–	–	–				–	–					
		n	–		3		–		36		–		102	1	1	1				–	–					



Appendix A31.–Salcha River carcass survey Chinook salmon escapement, age and sex composition, and mean length (mm), 2011.

		Brood Year (Age)																								
		2008		2007				2006				2005				2004				2003						
Sample	Sample	(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total		
Dates	Size	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
7/31, 8/2 stratum 1	97	Male	0	0.0	5	5.2	0	0.0	41	42.3	0	0.0	14	14.4	2	2.1	1	1.0	0	0.0	0	0.0	0	0.0	63	64.9
		Female	0	0.0	0	0.0	0	0.0	3	3.1	0	0.0	31	32.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	34	35.1
		Subtotal	0	0.0	5	5.2	0	0.0	44	45.4	0	0.0	45	46.4	2	2.1	1	1.0	0	0.0	0	0.0	0	0.0	97	100.0
		Male Mean Length	–		580	–		698	–			845	633			940	–			–	–	–				
		SE	–		9	–		7	–			20	23			–	–			–	–	–				
		Range	–		555–610	–		585–790	–			760–1015	610–655			–	–			–	–	–				
		n	–		5	–		41	–			14	2			1	–			–	–	–				
		Female Mean Length	–		–	–		748	–			853	–			–	–			–	–	–				
		SE	–		–	–		35	–			8	–			–	–			–	–	–				
		Range	–		–	–		680–795	–			765–935	–			–	–			–	–	–				
		n	–		–	–		3	–			31	–			–	–			–	–	–				
8/7–8 stratum 2	284	Male	1	0.4	54	19.0	0	0.0	89	31.3	0	0.0	20	7.0	1	0.4	0	0.0	0	0.0	0	0.0	0	0.0	165	58.1
		Female	0	0.0	0	0.0	0	0.0	8	2.8	0	0.0	105	37.0	0	0.0	6	2.1	0	0.0	0	0.0	0	0.0	119	41.9
		Subtotal	1	0.4	54	19.0	0	0.0	97	34.2	0	0.0	125	44.0	1	0.4	6	2.1	0	0.0	0	0.0	0	0.0	284	100.0
		Male Mean Length	360		544	–		686	–			815	720			–	–			–	–	–				
		SE	–		6	–		6	–			16	–			–	–			–	–	–				
		Range	–		450–625	–		515–795	–			715–965	–			–	–			–	–	–				
		n	1		54	–		89	–			20	1			–	–			–	–	–				
		Female Mean Length	–		–	–		778	–			850	–			868	–			–	–	–				
		SE	–		–	–		25	–			4	–			9	–			–	–	–				
		Range	–		–	–		695–935	–			740–945	–			845–910	–			–	–	–				
		n	–		–	–		8	–			105	–			6	–			–	–	–				

-continued-

## Appendix A31.–Page 2 of 2.

		Brood Year (Age)																							
		2008		2007				2006				2005				2004				2003					
Sample	Sample	(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total	
Dates	Size	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
8/10 stratum 3	146	Male	0	0.0	18	12.3	0	0.0	45	30.8	0	0.0	14	9.6	0	0.0	0	0.0	0	0.0	0	0.0	77	52.7	
		Female	0	0.0	0	0.0	0	0.0	1	0.7	0	0.0	67	45.9	0	0.0	1	0.7	0	0.0	0	0.0	69	47.3	
		Subtotal	0	0.0	18	12.3	0	0.0	46	31.5	0	0.0	81	55.5	0	0.0	1	0.7	0	0.0	0	0.0	146	100.0	
	Male Mean Length		–		549	–		678	–		839	–		–	–		–	–		–	–				
	SE		–		12	–		7	–		11	–		–	–		–	–		–	–				
	Range		–		450–680	–		555–775	–		780–915	–		–	–		–	–		–	–				
	n		–		18	–		45	–		14	–		–	–		–	–		–	–				
	Female Mean Length		–		–	–		835	–		842	–		890	–		–	–		–	–				
	SE		–		–	–		–	–		5	–		–	–		–	–		–	–				
	Range		–		–	–		–	–		740–940	–		–	–		–	–		–	–				
n		–		–	–		1	–		67	–		1	–		–	–		–	–					
Total	527	Male	1	0.2	77	14.6	0	0.0	175	33.2	0	0.0	48	9.1	3	0.6	1	0.2	0	0.0	0	0.0	305	57.9	
		Female	0	0.0	0	0.0	0	0.0	12	2.3	0	0.0	203	38.5	0	0.0	7	1.3	0	0.0	0	0.0	222	42.1	
		Total	1	0.2	77	14.6	0	0.0	187	35.5	0	0.0	251	47.6	3	0.6	8	1.5	0	0.0	0	0.0	527	100.0	
	Male Mean Length		360		548	–		687	–		831	662		940	–		–	–		–	–				
	SE		–		5	–		4	–		9	32		–	–		–	–		–	–				
	Range		–		450–680	–		515–795	–		715–1015	610–720		–	–		–	–		–	–				
	n		1		77	–		175	–		48	3		1	–		–	–		–	–				
	Female Mean Length		–		–	–		775	–		848	–		871	–		–	–		–	–				
	SE		–		–	–		19	–		3	–		8	–		–	–		–	–				
	Range		–		–	–		680–935	–		740–945	–		845–910	–		–	–		–	–				
n		–		–	–		12	–		203	–		7	–		–	–		–	–					

Appendix A32.—Yukon River Pilot Station acoustic tagging, Chinook salmon, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)																Total							
			2008		2007				2006				2005				2004				2003					
			(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)			
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
6/30 5.25" Mesh	1	Male	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0
		Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0
		Male Mean Length	—		—		—		657		—		—		—		—		—		—		—		—	
	SE	—		—		—		—		—		—		—		—		—		—		—		—		
	Range	—		—		—		—		—		—		—		—		—		—		—		—		
	n	—		—		—		1		—		—		—		—		—		—		—		—		
	Female Mean Length	—		—		—		—		—		—		—		—		—		—		—		—		
	SE	—		—		—		—		—		—		—		—		—		—		—		—		
	Range	—		—		—		—		—		—		—		—		—		—		—		—		
	n	—		—		—		—		—		—		—		—		—		—		—		—		
6/29, 7/10 6" Mesh	2	Male	0	0.0	0	0.0	0	0.0	1	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	50.0
		Female	0	0.0	0	0.0	0	0.0	1	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	50.0
		Subtotal	0	0.0	0	0.0	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	100.0
		Male Mean Length	—		—		—		598		—		—		—		—		—		—		—		—	
	SE	—		—		—		—		—		—		—		—		—		—		—		—		
	Range	—		—		—		—		—		—		—		—		—		—		—		—		
	n	—		—		—		1		—		—		—		—		—		—		—		—		
	Female Mean Length	—		—		—		599		—		—		—		—		—		—		—		—		
	SE	—		—		—		—		—		—		—		—		—		—		—		—		
	Range	—		—		—		—		—		—		—		—		—		—		—		—		
	n	—		—		—		1		—		—		—		—		—		—		—		—		

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		Brood Year (Age)																							
Sample Dates	Sample Size		2008		2007		2006		2005		2004		2003		Total										
			(1.1)		(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)	N	%									
			N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%							
6/29, 7/4–5 7.25" Mesh	9	Male	0	0.0	0	0.0	0	0.0	5	55.6	0	0.0	0	0.0	0	0.0	0	0.0	5	55.6					
		Female	0	0.0	0	0.0	0	0.0	3	33.3	0	0.0	1	11.1	0	0.0	0	0.0	4	44.4					
		Subtotal	0	0.0	0	0.0	0	0.0	8	88.9	0	0.0	1	11.1	0	0.0	0	0.0	9	100.0					
		Male Mean Length	–		–		–		739		–		–		–		–		–						
		SE	–		–		–		26		–		–		–		–		–						
		Range	–		–		–		654–795		–		–		–		–		–						
		n	–		–		–		5		–		–		–		–		–						
		Female Mean Length	–		–		–		807		–		881		–		–		–						
		SE	–		–		–		27		–		–		–		–		–						
		Range	–		–		–		768–860		–		–		–		–		–						
		n	–		–		–		3		–		1		–		–		–						
	6/29–7/4 8.5" Mesh	29	Male	0	0.0	0	0.0	0	0.0	7	24.1	0	0.0	5	17.2	0	0.0	1	3.4	0	0.0	13	44.8		
			Female	0	0.0	0	0.0	0	0.0	2	6.9	0	0.0	12	41.4	0	0.0	0	0.0	2	6.9	0	0.0	16	55.2
			Subtotal	0	0.0	0	0.0	0	0.0	9	31.0	0	0.0	17	58.6	0	0.0	1	3.4	2	6.9	0	0.0	29	100.0
		Male Mean Length	–		–		–		791		–		834		–		847		–		–				
		SE	–		–		–		18		–		20		–		–		–		–				
		Range	–		–		–		730–859		–		798–905		–		–		–		–				
		n	–		–		–		7		–		5		–		1		–		–				
		Female Mean Length	–		–		–		745		–		889		–		–		874		–				
		SE	–		–		–		65		–		13		–		–		6		–				
		Range	–		–		–		680–809		–		819–960		–		–		868–880		–				
		n	–		–		–		2		–		12		–		–		2		–				

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		Brood Year (Age)																								
		2008		2007				2006				2005				2004				2003						
Sample	Sample	(1.1)		(1.2)		(2.1)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total		
Dates	Size	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Total	41	Male	0	0.0	0	0.0	0	0.0	14	34.1	0	0.0	5	12.2	0	0.0	1	2.4	0	0.0	0	0.0	0	0.0	20	48.8
		Female	0	0.0	0	0.0	0	0.0	6	14.6	0	0.0	13	31.7	0	0.0	0	0.0	2	4.9	0	0.0	0	0.0	21	51.2
		Total	0	0.0	0	0.0	0	0.0	20	48.8	0	0.0	18	43.9	0	0.0	1	2.4	2	4.9	0	0.0	0	0.0	41	100.0
		Male Mean Length	–		–		–	749		–		834		–		847		–		–		–				
		SE	–		–		–	20		–		20		–		–		–		–		–				
		Range	–		–		–	598–859		–		798–905		–		–		–		–		–				
		n	–		–		–	14		–		5		–		1		–		–		–				
		Female Mean Length	–		–		–	752		–		888		–		–		874		–		–				
		SE	–		–		–	39		–		12		–		–		6		–		–				
		Range	–		–		–	599–860		–		819–960		–		–		868–880		–		–				
		n	–		–		–	6		–		13		–		–		2		–		–				



## **APPENDIX B: SUMMER CHUM SALMON**

Appendix B1.–Yukon River District 1 summer chum salmon commercial gillnet harvest, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)									
			2008		2007		2006		2005		2004	
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)	Total
			N	%	N	%	N	%	N	%	N	%
6/24 Period 1	159	Male	0	0.0	3,638	33.3	3,294	30.2	0	0.0	0	0.0
		Female	0	0.0	1,510	13.8	2,471	22.6	0	0.0	0	0.0
		Subtotal	0	0.0	5,148	47.2	5,765	52.8	0	0.0	0	0.0
		Male Mean Length	–		581		587		–		–	
		SE	–		3		3		–		–	
		Range	–		520–635		540–640		–		–	
		n	–		53		48		–		–	
		Female Mean Length	–		559		561		–		–	
		SE	–		4		4		–		–	
		Range	–		525–615		520–605		–		–	
		n	–		22		36		–		–	
6/27 Period 2	157	Male	0	0.0	8,598	28.5	11,273	37.3	573	1.9	0	0.0
		Female	0	0.0	4,012	13.3	5,732	19.0	0	0.0	0	0.0
		Subtotal	0	0.0	12,611	41.8	17,005	56.3	573	1.9	0	0.0
		Male Mean Length	–		580		593		585		–	
		SE	–		3		3		3		–	
		Range	–		525–635		545–640		580–590		–	
		n	–		44		59		3		–	
		Female Mean Length	–		568		577		–		–	
		SE	–		3		3		–		–	
		Range	–		540–615		545–605		–		–	
		n	–		21		30		–		–	
6/29 Period 3	160	Male	0	0.0	9,001	31.9	13,413	47.5	0	0.0	0	0.0
		Female	0	0.0	2,294	8.1	3,530	12.5	0	0.0	0	0.0
		Subtotal	0	0.0	11,295	40.0	16,942	60.0	0	0.0	0	0.0
		Male Mean Length	–		577		594		–		–	
		SE	–		3		3		–		–	
		Range	–		525–625		555–695		–		–	
		n	–		51		76		–		–	
		Female Mean Length	–		557		570		–		–	
		SE	–		5		4		–		–	
		Range	–		525–585		525–595		–		–	
		n	–		13		20		–		–	

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Sample Dates	Sample Size		Brood Year (Age)									
			2008		2007		2006		2005		2004	
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)	
			N	%	N	%	N	%	N	%	N	%
7/1 Period 4	158	Male	0	0.0	7,989	35.4	5,136	22.8	143	0.6	0	0.0
		Female	0	0.0	4,137	18.4	5,136	22.8	0	0.0	0	0.0
		Season Total	0	0.0	12,126	53.8	10,271	45.6	143	0.6	0	0.0
		Male Mean Length	–		575		583		570		–	
		SE	–		3		3		–		–	
		Range	–		525–630		550–625		–		–	
		n	–		56		36		1		–	
		Female Mean Length	–		553		566		–		–	
		SE	–		4		3		–		–	
		Range	–		515–590		505–600		–		–	
		n	–		29		36		–		–	
7/3 Period 5	157	Male	0	0.0	5,035	29.3	3,721	21.7	0	0.0	0	0.0
		Female	0	0.0	3,502	20.4	4,925	28.7	0	0.0	0	0.0
		Subtotal	0	0.0	8,537	49.7	8,647	50.3	0	0.0	0	0.0
		Male Mean Length	–		569		576		–		–	
		SE	–		3		4		–		–	
		Range	–		520–620		515–620		–		–	
		n	–		46		34		–		–	
		Female Mean Length	–		555		561		–		–	
		SE	–		3		4		–		–	
		Range	–		530–600		510–610		–		–	
		n	–		32		45		–		–	
7/4 Period 6	158	Male	54	0.6	2,432	28.5	1,621	19.0	54	0.6	0	0.0
		Female	54	0.6	1,946	22.8	2,378	27.8	0	0.0	0	0.0
		Subtotal	108	1.3	4,378	51.3	3,999	46.8	54	0.6	0	0.0
		Male Mean Length	575		569		583		605		–	
		SE	–		3		5		–		–	
		Range	–		530–630		515–655		–		–	
		n	1		45		30		1		–	
		Female Mean Length	550		559		563		–		–	
		SE	–		4		3		–		–	
		Range	–		510–600		505–605		–		–	
		n	1		36		44		–		–	

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		Brood Year (Age)													
		2008		2007		2006		2005		2004					
Sample	Sample	(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		Total			
Dates	Size	N	%	N	%	N	%	N	%	N	%	N	%		
7/6 Period 7	158	Male	0	0.0	3,340	29.1	2,541	22.2	145	1.3	0	0.0	6,026	52.5	
		Female	0	0.0	2,614	22.8	2,832	24.7	0	0.0	0	0.0	5,446	47.5	
		Subtotal	0	0.0	5,954	51.9	5,373	46.8	145	1.3	0	0.0	11,472	100.0	
	Male Mean Length	–		569		582		550		–					
		SE	–		3		4		30		–				
		Range	–		530–625		540–650		520–580		–				
	n	–		46		35		2		–					
		Female Mean Length	–		561		569		–		–				
			SE	–		4		3		–		–			
	Range		–		490–630		530–620		–		–				
	n	–		36		39		–		–					
7/8 Period 8		151	Male	0	0.0	2,593	38.4	1,744	25.8	45	0.7	0	0.0	4,382	64.9
			Female	0	0.0	1,118	16.6	1,207	17.9	45	0.7	0	0.0	2,370	35.1
	Subtotal		0	0.0	3,711	55.0	2,951	43.7	89	1.3	0	0.0	6,752	100.0	
	Male Mean Length	–		564		573		590		–					
SE		–		4		4		–		–					
Range		–		520–645		525–625		–		–					
n	–		58		39		1		–						
	Female Mean Length	–		561		560		555		–					
		SE	–		4		4		–		–				
Range		–		530–600		510–600		–		–					
n	–		25		27		1		–						
	7/11 Period 9	157	Male	0	0.0	547	40.1	330	24.2	9	0.6	0	0.0	886	65.0
			Female	0	0.0	269	19.7	209	15.3	0	0.0	0	0.0	478	35.0
Subtotal			0	0.0	817	59.9	539	39.5	9	0.6	0	0.0	1,364	100.0	
Male Mean Length		–		565		577		595		–					
	SE	–		3		4		–		–					
	Range	–		510–640		535–635		–		–					
n	–		63		38		1		–						
	Female Mean Length	–		558		551		–		–					
		SE	–		4		5		–		–				
Range		–		515–600		510–600		–		–					
n	–		31		24		–		–						

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Sample Dates	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		N	%
			N	%	N	%	N	%	N	%	N	%	N	%
7/12 Period 10	159	Male	65	0.6	3,811	37.1	1,550	15.1	0	0.0	0	0.0	5,426	52.8
		Female	0	0.0	3,036	29.6	1,809	17.6	0	0.0	0	0.0	4,844	47.2
		Subtotal	65	0.6	6,847	66.7	3,359	32.7	0	0.0	0	0.0	10,270	100.0
		Male Mean Length	535		582		583		–		–			
		SE	–		4		5		–		–			
		Range	–		495–650		540–630		–		–			
		n	1		59		24		–		–			
		Female Mean Length	–		568		572		–		–			
		SE	–		4		6		–		–			
		Range	–		495–615		485–625		–		–			
		n	–		47		28		–		–			
		7/14 Period 11	154	Male	0	0.0	4,773	29.9	2,490	15.6	0	0.0	0	0.0
Female	0			0.0	5,811	36.4	2,905	18.2	0	0.0	0	0.0	8,716	54.5
Subtotal	0			0.0	10,583	66.2	5,396	33.8	0	0.0	0	0.0	15,979	100.0
Male Mean Length	–				569		570		–		–			
SE	–				4		5		–		–			
Range	–				525–625		540–620		–		–			
n	–				46		24		–		–			
Female Mean Length	–				570		566		–		–			
SE	–				4		4		–		–			
Range	–				515–650		510–620		–		–			
n	–				56		28		–		–			
Season	1,728			Male	119	0.1	51,757	31.7	47,114	28.8	969	0.6	0	0.0
		Female	54	0.0	30,249	18.5	33,133	20.3	45	0.0	0	0.0	63,481	38.8
		Total	173	0.1	82,006	50.2	80,247	49.1	1,013	0.6	0	0.0	163,439	100.0
		Male Mean Length	553		575		584		579		–			
		SE	–		1		1		9		–			
		Range	535–575		495–650		515–695		520–605		–			
		n	2		567		443		9		–			
		Female Mean Length	550		561		568		555		–			
		SE	–		1		1		–		–			
		Range	–		490–650		485–625		–		–			
		n	1		348		357		1		–			

Note: All commercial fishing periods were restricted to 6.0 in or smaller mesh gillnets.

Appendix B2.–Yukon River District 2 summer chum salmon commercial gillnet harvest, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)					Total	
			2008	2007	2006	2005	2004		
			(0.2)	(0.3)	(0.4)	(0.5)	(0.6)	N	%
			N %	N %	N %	N %	N %		
6/26 Period 1	157	Male	0 0.0	4,299 28.0	4,982 32.5	98 0.6	0 0.0	9,379	61.1
		Female	0 0.0	2,247 14.6	3,615 23.6	98 0.6	0 0.0	5,959	38.9
		Subtotal	0 0.0	6,546 42.7	8,597 56.1	195 1.3	0 0.0	15,338	100.0
		Male Mean Length	–	592	589	640	–		
		SE	–	3	3	–	–		
		Range	–	550–635	545–655	–	–		
		n	–	44	51	1	–		
		Female Mean Length	–	572	573	580	–		
		SE	–	3	3	–	–		
		Range	–	550–610	525–625	–	–		
		n	–	23	37	1	–		
Period 2 <sup>a</sup>		Male	0 0.0	3,082 28.5	4,041 37.3	205 1.9	0 0.0	7,328	67.7
		Female	0 0.0	1,438 13.3	2,055 19.0	0 0.0	0 0.0	3,493	32.3
		Subtotal	0 0.0	4,520 41.8	6,095 56.3	205 1.9	0 0.0	10,821	100.0
Period 3 <sup>b</sup>		Male	15 0.6	666 28.5	444 19.0	15 0.6	0 0.0	1,140	48.7
		Female	15 0.6	533 22.8	652 27.8	0 0.0	0 0.0	1,200	51.3
		Subtotal	30 1.3	1,200 51.3	1,096 46.8	15 0.6	0 0.0	2,340	100.0
Period 4 <sup>c</sup>		Male	0 0.0	2,990 29.1	2,275 22.2	130 1.3	0 0.0	5,396	52.5
		Female	0 0.0	2,340 22.8	2,535 24.7	0 0.0	0 0.0	4,875	47.5
		Subtotal	0 0.0	5,331 51.9	4,810 46.8	130 1.3	0 0.0	10,271	100.0
Period 5 <sup>d</sup>		Male	0 0.0	8,522 38.4	5,730 25.8	147 0.7	0 0.0	14,400	64.9
		Female	0 0.0	3,673 16.6	3,967 17.9	147 0.7	0 0.0	7,787	35.1
		Subtotal	0 0.0	12,196 55.0	9,698 43.7	294 1.3	0 0.0	22,187	100.0
Period 6 <sup>d</sup>		Male	0 0.0	3,348 38.4	2,251 25.8	58 0.7	0 0.0	5,657	64.9
		Female	0 0.0	1,443 16.6	1,558 17.9	58 0.7	0 0.0	3,059	35.1
		Subtotal	0 0.0	4,791 55.0	3,810 43.7	115 1.3	0 0.0	8,716	100.0
Period 7 <sup>e</sup>		Male	0 0.0	2,627 40.1	1,584 24.2	42 0.6	0 0.0	4,253	65.0
		Female	0 0.0	1,293 19.7	1,001 15.3	0 0.0	0 0.0	2,293	35.0
		Subtotal	0 0.0	3,919 59.9	2,585 39.5	42 0.6	0 0.0	6,546	100.0

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		Brood Year (Age)									
		2008		2007		2006		2005		2004	
		(0.2)		(0.3)		(0.4)		(0.5)		(0.6)	
		N	%	N	%	N	%	N	%	N	%
Period 8 <sup>f</sup>	Male	76	0.6	4,512	37.1	1,835	15.1	0	0.0	0	0.0
	Female	0	0.0	3,594	29.6	2,141	17.6	0	0.0	0	0.0
	Subtotal	76	0.6	8,106	66.7	3,977	32.7	0	0.0	0	0.0
Period 9 <sup>g</sup>	Male	0	0.0	4,389	29.9	2,290	15.6	0	0.0	0	0.0
	Female	0	0.0	5,343	36.4	2,671	18.2	0	0.0	0	0.0
	Subtotal	0	0.0	9,732	66.2	4,961	33.8	0	0.0	0	0.0
Season <sup>h</sup>	Male	91	0.1	34,435	33.4	25,434	24.7	694	0.7	0	0.0
	Female	15	0.0	21,905	21.3	20,195	19.6	302	0.3	0	0.0
	Total	106	0.1	56,339	54.7	45,629	44.3	997	1.0	0	0.0

*Note:* All commercial fishing periods were restricted to 6.0 in or smaller mesh gillnets.

*Note:* Period 1 was the only period sampled.

<sup>a</sup> Age and sex proportions from District 1 Period 2 were applied to the harvest of this period to estimate composition.

<sup>b</sup> Age and sex proportions from District 1 Period 6 were applied to the harvest of this period to estimate composition.

<sup>c</sup> Age and sex proportions from District 1 Period 7 were applied to the harvest of this period to estimate composition.

<sup>d</sup> Age and sex proportions from District 1 Period 8 were applied to the harvest of these periods to estimate composition.

<sup>e</sup> Age and sex proportions from District 1 Period 9 were applied to the harvest of this period to estimate composition.

<sup>f</sup> Age and sex proportions from District 1 Period 10 were applied to the harvest of this period to estimate composition.

<sup>g</sup> Age and sex proportions from District 1 Period 11 were applied to the harvest of this period to estimate composition.

<sup>h</sup> Season totals include age and sex composition of fish sampled from Period 1 and estimated age and sex composition using District 1 proportions for Periods 2–9.

Appendix B3.—Yukon River District 6 summer chum salmon commercial fish wheel harvest, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)									
			2008		2007		2006		2005		2004	
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)	
			N	%	N	%	N	%	N	%	N	%
7/20 Periods 1, 2	111	Male	16	1.8	228	25.2	284	31.5	0	0.0	0	0.0
		Female	0	0.0	219	24.3	154	17.1	0	0.0	0	0.0
		Subtotal	16	1.8	447	49.5	439	48.6	0	0.0	0	0.0
		Male Mean Length	575		598		609		—		—	
		SE	0		4		4		—		—	
		Range	—		550–630		560–665		—		—	
		n	2		28		35		—		—	
		Female Mean Length	—		570		587		—		—	
		SE	—		4		4		—		—	
		Range	—		530–615		555–620		—		—	
		n	—		27		19		—		—	
7/23 Periods 3, 4	105	Male	23	1.0	563	23.8	495	21.0	0	0.0	0	0.0
		Female	0	0.0	630	26.7	653	27.6	0	0.0	0	0.0
		Subtotal	23	1.0	1,193	50.5	1,148	48.6	0	0.0	0	0.0
		Male Mean Length	555		595		587		—		—	
		SE	—		5		5		—		—	
		Range	—		545–640		530–635		—		—	
		n	1		25		22		—		—	
		Female Mean Length	—		580		583		—		—	
		SE	—		4		5		—		—	
		Range	—		515–610		535–640		—		—	
		n	—		28		29		—		—	
7/27 Periods 5, 6	95	Male	0	0.0	550	21.1	742	28.4	0	0.0	0	0.0
		Female	27	1.1	522	20.0	770	29.5	0	0.0	0	0.0
		Subtotal	27	1.1	1,072	41.1	1,512	57.9	0	0.0	0	0.0
		Male Mean Length	—		577		605		—		—	
		SE	—		5		4		—		—	
		Range	—		530–615		555–640		—		—	
		n	—		20		27		—		—	
		Female Mean Length	560		572		585		—		—	
		SE	—		5		5		—		—	
		Range	—		530–600		525–625		—		—	
		n	1		19		28		—		—	

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Sample Dates	Sample Size		Brood Year (Age)									
			2008		2007		2006		2005		2004	
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)	
			N	%	N	%	N	%	N	%	N	%
8/2 Periods 7, 8	55	Male	0	0.0	1,311	47.3	1,261	45.5	0	0.0	0	0.0
		Female	0	0.0	50	1.8	151	5.5	0	0.0	0	0.0
		Subtotal	0	0.0	1,362	49.1	1,412	50.9	0	0.0	0	0.0
		Male Mean Length	–		594		606		–		–	
		SE	–		4		4		–		–	
		Range	–		560–630		555–660		–		–	
		n	–		26		25		–		–	
		Female Mean Length	–		565		578		–		–	
		SE	–		–		6		–		–	
		Range	–		–		570–590		–		–	
		n	–		1		3		–		–	
Season	366	Male	39	0.4	2,651	30.6	2,783	32.2	0	0.0	0	0.0
		Female	27	0.3	1,422	16.4	1,728	20.0	0	0.0	0	0.0
		Total	66	0.8	4,074	47.1	4,511	52.1	0	0.0	0	0.0
		Male Mean Length	561		590		601		–		–	
		SE	0		2		2		–		–	
		Range	555–575		530–640		530–665		–		–	
		n	3		99		109		–		–	
		Female Mean Length	560		572		583		–		–	
		SE	–		3		3		–		–	
		Range	–		515–615		525–640		–		–	
		n	1		75		79		–		–	

Appendix B4.–Coastal District Dall Point test fishery summer chum salmon 5.5 in mesh drift gillnet, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)									
			2008		2007		2006		2005		2004	
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)	
			N	%	N	%	N	%	N	%	N	%
6/8–13, 15–17, 20 Stratum 1	111	Male	0	0.0	43	38.7	41	36.9	0	0.0	0	0.0
		Female	0	0.0	15	13.5	12	10.8	0	0.0	0	0.0
		Subtotal	0	0.0	58	52.3	53	47.7	0	0.0	0	0.0
											111	100.0
		Male Mean Length	–		593		606		–		–	
		SE	–		3		4		–		–	
		Range	–		530–625		521–675		–		–	
		n	–		43		41		–		–	
		Female Mean Length	–		561		569		–		–	
		SE	–		6		9		–		–	
		Range	–		525–610		505–600		–		–	
		n	–		15		12		–		–	
6/23–25, 28; 7/1–3, 7 Stratum 2	94	Male	0	0.0	48	51.1	29	30.9	1	1.1	0	0.0
		Female	0	0.0	10	10.6	6	6.4	0	0.0	0	0.0
		Subtotal	0	0.0	58	61.7	35	37.2	1	1.1	0	0.0
											94	100.0
		Male Mean Length	–		580		601		590		–	
		SE	–		4		6		–		–	
		Range	–		500–630		540–680		–		–	
		n	–		48		29		1		–	
		Female Mean Length	–		559		573		–		–	
		SE	–		8		16		–		–	
		Range	–		500–590		550–650		–		–	
		n	–		10		6		–		–	
Total	205	Male	0	0.0	91	44.4	70	34.1	1	0.5	0	0.0
		Female	0	0.0	25	12.2	18	8.8	0	0.0	0	0.0
		Total	0	0.0	116	56.6	88	42.9	1	0.5	0	0.0
											205	100.0
		Male Mean Length	–		586		604		590		–	
		SE	–		3		3		–		–	
		Range	–		500–630		521–680		–		–	
		n	–		91		70		1		–	
		Female Mean Length	–		560		571		–		–	
		SE	–		5		8		–		–	
		Range	–		500–610		505–650		–		–	
		n	–		25		18		–		–	



Appendix B5.–Lower Yukon River test fishery (Big Eddy site) summer chum salmon 5.5 in mesh drift gillnet, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)			
			N	%	N	%	N	%	N	%	N	%	N	%
6/3–11, 14–18 Quartile 1	272	Male	0	0.0	47	17.3	57	21.0	1	0.4	0	0.0	105	38.6
		Female	0	0.0	73	26.8	93	34.2	1	0.4	0	0.0	167	61.4
		Subtotal	0	0.0	120	44.1	150	55.1	2	0.7	0	0.0	272	100.0
		Male Mean Length	–		581		593		585		–			
		SE	–		4		3		–		–			
		Range	–		530–645		540–645		–		–			
		n	–		47		57		1		–			
		Female Mean Length	–		562		566		580		–			
		SE	–		2		2		–		–			
		Range	–		500–610		520–615		–		–			
		n	–		73		93		1		–			
6/19–24 Quartile 2	140	Male	0	0.0	29	20.7	24	17.1	0	0.0	0	0.0	53	37.9
		Female	0	0.0	31	22.1	56	40.0	0	0.0	0	0.0	87	62.1
		Subtotal	0	0.0	60	42.9	80	57.1	0	0.0	0	0.0	140	100.0
		Male Mean Length	–		579		592		–		–			
		SE	–		4		6		–		–			
		Range	–		530–630		520–630		–		–			
		n	–		29		24		–		–			
		Female Mean Length	–		558		564		–		–			
		SE	–		3		2		–		–			
		Range	–		520–605		530–615		–		–			
		n	–		31		56		–		–			
6/25–28 Quartile 3	86	Male	0	0.0	20	23.3	15	17.4	0	0.0	0	0.0	35	40.7
		Female	0	0.0	32	37.2	19	22.1	0	0.0	0	0.0	51	59.3
		Subtotal	0	0.0	52	60.5	34	39.5	0	0.0	0	0.0	86	100.0
		Male Mean Length	–		577		580		–		–			
		SE	–		4		10		–		–			
		Range	–		540–610		525–660		–		–			
		n	–		20		15		–		–			
		Female Mean Length	–		552		556		–		–			
		SE	–		2		4		–		–			
		Range	–		520–580		525–590		–		–			
		n	–		32		19		–		–			

-continued-

		Brood Year (Age)												
Sample Dates	Sample Size		2008		2007		2006		2005		2004		Total	
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)			
			N	%	N	%	N	%	N	%	N	%	N	%
6/29–7/4, 6–10, 13–15 Quartile 4	260	Male	0	0.0	45	17.3	44	16.9	0	0.0	0	0.0	89	34.2
		Female	0	0.0	86	33.1	83	31.9	2	0.8	0	0.0	171	65.8
		Subtotal	0	0.0	131	50.4	127	48.8	2	0.8	0	0.0	260	100.0
		Male Mean Length	–		559		569		–		–			
		SE	–		4		5		–		–			
		Range	–		510–615		505–655		–		–			
		n	–		45		44		–		–			
		Female Mean Length	–		550		553		570		–			
		SE	–		2		2		20		–			
		Range	–		505–610		495–600		550–590		–			
		n	–		86		83		2		–			
Total	758	Male	0	0.0	141	18.6	140	18.5	1	0.1	0	0.0	282	37.2
		Female	0	0.0	222	29.3	251	33.1	3	0.4	0	0.0	476	62.8
		Total	0	0.0	363	47.9	391	51.6	4	0.5	0	0.0	758	100.0
		Male Mean Length	–		573		584		585		–			
		SE	–		2		3		–		–			
		Range	–		510–645		505–660		–		–			
		n	–		141		140		1		–			
		Female Mean Length	–		555		560		573		–			
		SE	–		1		1		12		–			
		Range	–		500–610		495–615		550–590		–			
		n	–		222		251		3		–			

Appendix B6.–Lower Yukon River test fishery (Middle Mouth site) summer chum salmon 5.5 in mesh drift gillnet, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)			
			N	%	N	%	N	%	N	%	N	%	N	%
6/6, 8–9, 11–12, 14–18 Quartile 1	170	Male	0	0.0	25	14.7	43	25.3	0	0.0	0	0.0	68	40.0
		Female	0	0.0	28	16.5	74	43.5	0	0.0	0	0.0	102	60.0
		Subtotal	0	0.0	53	31.2	117	68.8	0	0.0	0	0.0	170	100.0
		Male Mean Length	–		589		583		–		–			
		SE	–		5		5		–		–			
		Range	–		540–640		510–635		–		–			
		n	–		25		43		–		–			
		Female Mean Length	–		572		571		–		–			
		SE	–		5		2		–		–			
		Range	–		500–630		530–625		–		–			
		n	–		28		74		–		–			
6/19–24 Quartile 2	156	Male	0	0.0	24	15.4	31	19.9	0	0.0	0	0.0	55	35.3
		Female	1	0.6	34	21.8	66	42.3	0	0.0	0	0.0	101	64.7
		Subtotal	1	0.6	58	37.2	97	62.2	0	0.0	0	0.0	156	100.0
		Male Mean Length	–		576		589		–		–			
		SE	–		5		4		–		–			
		Range	–		520–615		555–650		–		–			
		n	–		24		31		–		–			
		Female Mean Length	540		573		568		–		–			
		SE	–		5		3		–		–			
		Range	–		510–650		520–630		–		–			
		n	1		34		66		–		–			
6/25–28 Quartile 3	76	Male	0	0.0	18	23.7	10	13.2	0	0.0	0	0.0	28	36.8
		Female	0	0.0	14	18.4	34	44.7	0	0.0	0	0.0	48	63.2
		Subtotal	0	0.0	32	42.1	44	57.9	0	0.0	0	0.0	76	100.0
		Male Mean Length	–		578		587		–		–			
		SE	–		5		7		–		–			
		Range	–		545–635		570–640		–		–			
		n	–		18		10		–		–			
		Female Mean Length	–		560		564		–		–			
		SE	–		6		3		–		–			
		Range	–		530–600		530–590		–		–			
		n	–		14		34		–		–			

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		Brood Year (Age)													
Sample Dates	Sample Size														
		2008		2007		2006		2005		2004		Total			
		(0.2)		(0.3)		(0.4)		(0.5)		(0.6)					
		N	%	N	%	N	%	N	%	N	%	N	%		
6/29–7/5, 7–10, 12– 13, 15 Quartile 4	333	Male	0	0.0	60	18.0	56	16.8	0	0.0	0	0.0	116	34.8	
		Female	0	0.0	92	27.6	123	36.9	2	0.6	0	0.0	217	65.2	
		Subtotal	0	0.0	152	45.6	179	53.8	2	0.6	0	0.0	333	100.0	
	Male Mean Length	–		574		581		–		–					
		SE	–		4		4		–		–				
		Range	–		510–635		520–675		–		–				
	n	–		60		56		–		–					
		Female Mean Length	–		556		558		573		–				
			SE	–		2		2		28		–			
	Range		–		500–655		500–605		545–600		–				
n	–		92		123		2		–						
	Total	735	Male	0	0.0	127	17.3	140	19.0	0	0.0	0	0.0	267	36.3
			Female	1	0.1	168	22.9	297	40.4	2	0.3	0	0.0	468	63.7
Total			1	0.1	295	40.1	437	59.5	2	0.3	0	0.0	735	100.0	
Male Mean Length	–		578		584		–		–						
	SE	–		2		2		–		–					
	Range	–		510–640		510–675		–		–					
n	–		127		140		–		–						
	Female Mean Length	540		562		564		573		–					
		SE	–		2		1		28		–				
Range		–		500–655		500–630		545–600		–					
n	1		168		297		2		–						

Appendix B7.–Lower Yukon River test fishery (combined Big Eddy and Middle Mouth sites) summer chum salmon 5.5 in mesh drift gillnet, age and sex composition, and mean length (mm), 2011.

		Brood Year (Age)													
Sample Dates	Sample Size			2008		2007		2006		2005		2004		Total	
				(0.2)		(0.3)		(0.4)		(0.5)		(0.6)	N	%	
				N	%	N	%	N	%	N	%	N	%	N	%
6/3–18 Quartile 1	442	Male	0	0.0	72	16.3	100	22.6	1	0.2	0	0.0	173	39.1	
		Female	0	0.0	101	22.9	167	37.8	1	0.2	0	0.0	269	60.9	
		Subtotal	0	0.0	173	39.1	267	60.4	2	0.5	0	0.0	442	100.0	
	Male Mean Length	–		583		589		585		–					
		SE	–		3		3		–		–				
		Range	–		530–645		510–645		–		–				
		n	–		72		100		1		–				
	Female Mean Length	–		565		568		580		–					
		SE	–		2		2		–		–				
		Range	–		500–630		520–625		–		–				
		n	–		101		167		1		–				
6/19–24 Quartile 2	296	Male	0	0.0	53	17.9	55	18.6	0	0.0	0	0.0	108	36.5	
		Female	1	0.3	65	22.0	122	41.2	0	0.0	0	0.0	188	63.5	
		Subtotal	1	0.3	118	39.9	177	59.8	0	0.0	0	0.0	296	100.0	
	Male Mean Length	–		578		590		–		–					
		SE	–		3		4		–		–				
		Range	–		520–630		520–650		–		–				
		n	–		53		55		–		–				
	Female Mean Length	540		566		566		–		–					
		SE	–		3		2		–		–				
		Range	–		510–650		520–630		–		–				
		n	1		65		122		–		–				
6/25–28 Quartile 3	162	Male	0	0.0	38	23.5	25	15.4	0	0.0	0	0.0	63	38.9	
		Female	0	0.0	46	28.4	53	32.7	0	0.0	0	0.0	99	61.1	
		Subtotal	0	0.0	84	51.9	78	48.1	0	0.0	0	0.0	162	100.0	
	Male Mean Length	–		578		582		–		–					
		SE	–		3		7		–		–				
		Range	–		540–635		525–660		–		–				
		n	–		38		25		–		–				
	Female Mean Length	–		554		561		–		–					
		SE	–		2		2		–		–				
		Range	–		520–600		525–590		–		–				
		n	–		46		53		–		–				

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		Brood Year (Age)													
Sample Dates	Sample Size														
		2008		2007		2006		2005		2004		Total			
		(0.2)		(0.3)		(0.4)		(0.5)		(0.6)					
		N	%	N	%	N	%	N	%	N	%	N	%		
6/29–7/10, 12–15 Quartile 4	593	Male	0	0.0	105	17.7	100	16.9	0	0.0	0	0.0	205	34.6	
		Female	0	0.0	178	30.0	206	34.7	4	0.7	0	0.0	388	65.4	
		Subtotal	0	0.0	283	47.7	306	51.6	4	0.7	0	0.0	593	100.0	
	Male Mean Length	–		568		576		–		–					
		SE	–		3		3		–		–				
		Range	–		510–635		505–675		–		–				
		n	–		105		100		–		–				
	Female Mean Length	–		553		556		571		–					
		SE	–		2		1		14		–				
		Range	–		500–655		495–605		545–600		–				
		n	–		178		206		4		–				
	Total	1,493	Male	0	0.0	268	18.0	280	18.8	1	0.1	0	0.0	549	36.8
			Female	1	0.1	390	26.1	548	36.7	5	0.3	0	0.0	944	63.2
			Total	1	0.1	658	44.1	828	55.5	6	0.4	0	0.0	1,493	100.0
Male Mean Length		–		575		584		585		–					
		SE	–		2		2		–		–				
		Range	–		510–645		505–675		–		–				
		n	–		268		280		1		–				
Female Mean Length		540		558		563		573		–					
		SE	–		1		1		11		–				
		Range	–		500–655		495–630		545–600		–				
		n	1		390		548		5		–				

Appendix B8.–Andreafsky River (East Fork) weir summer chum salmon escapement, age and sex composition, and mean length (mm), 2011.

Sample Dates (Strata Dates)	Sample Size		Brood Year (Age)									
			2008		2007		2006		2005		2004	
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)	
			N	%	N	%	N	%	N	%	N	%
6/20–21, 23–29 (6/20–7/1)	313	Male	0	0.0	2,073	10.9	9,328	48.9	122	0.6	0	0.0
		Female	0	0.0	1,951	10.2	5,609	29.4	0	0.0	0	0.0
		Subtotal	0	0.0	4,024	21.1	14,936	78.3	122	0.6	0	0.0
		Male Mean Length	–		569		592		575		–	
		SE	–		4		2		15		–	
		Range	–		515–610		520–670		560–590		–	
		n	–		34		153		2		–	
		Female Mean Length	–		550		554		–		–	
		SE	–		3		2		–		–	
		Range	–		510–585		515–598		–		–	
		n	–		32		92		–		–	
7/3–7 (7/2–8)	151	Male	218	0.7	7,855	23.8	15,274	46.4	0	0.0	0	0.0
		Female	0	0.0	2,400	7.3	7,201	21.9	0	0.0	0	0.0
		Subtotal	218	0.7	10,256	31.1	22,475	68.2	0	0.0	0	0.0
		Male Mean Length	580		574		581		–		–	
		SE	–		5		3		–		–	
		Range	–		510–640		530–640		–		–	
		n	1		36		70		–		–	
		Female Mean Length	–		550		545		–		–	
		SE	–		6		4		–		–	
		Range	–		505–580		495–590		–		–	
		n	–		11		33		–		–	
7/10–11 (7/9–11)	76	Male	0	0.0	3,139	15.8	7,063	35.5	0	0.0	0	0.0
		Female	0	0.0	2,093	10.5	7,586	38.2	0	0.0	0	0.0
		Subtotal	0	0.0	5,232	26.3	14,649	73.7	0	0.0	0	0.0
		Male Mean Length	–		554		574		–		–	
		SE	–		6		7		–		–	
		Range	–		530–590		510–670		–		–	
		n	–		12		27		–		–	
		Female Mean Length	–		526		541		–		–	
		SE	–		5		5		–		–	
		Range	–		510–555		470–585		–		–	
		n	–		8		29		–		–	

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Sample Dates (Strata Dates)		Sample Size	Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)			
			N	%	N	%	N	%	N	%	N	%	N	%
7/14, 17–21, 24–29 (7/12–30)	404	Male	212	0.7	7,070	24.8	5,797	20.3	71	0.2	0	0.0	13,149	46.0
		Female	0	0.0	9,615	33.7	5,797	20.3	0	0.0	0	0.0	15,412	54.0
		Subtotal	212	0.7	16,684	58.4	11,594	40.6	71	0.2	0	0.0	28,561	100.0
		Male Mean Length		535		546		566		520		–		
		SE		21		3		4		–		–		
		Range		495–565		475–635		480–635		–		–		
		n		3		100		82		1		–		
		Female Mean Length		–		519		525		–		–		
		SE		–		2		3		–		–		
		Range		–		465–570		435–615		–		–		
		n		–		136		82		–		–		
		Season	944	Male	430	0.4	20,137	20.0	37,462	37.3	193	0.2	0	0.0
Female	0			0.0	16,058	16.0	26,193	26.1	0	0.0	0	0.0	42,251	42.1
Total	430			0.4	36,195	36.0	63,655	63.4	193	0.2	0	0.0	100,473	100.0
Male Mean Length				559		561		577		542		–		
SE				21		2		2		15		–		
Range				495–580		475–640		480–670		520–590		–		
n				4		182		332		3		–		
Female Mean Length				–		537		540		–		–		
SE				–		2		2		–		–		
Range				–		465–585		435–615		–		–		
n				–		187		236		–		–		



Appendix B9.—Anvik River sonar summer chum salmon escapement, age and sex composition, and mean length (mm), 2011.

Sample Dates (Strata Dates)	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		N	%
			N	%	N	%	N	%	N	%	N	%	N	%
6/29–30 (6/16–30)	144	Male	0	0.0	19,052	18.8	36,693	36.1	1,411	1.4	0	0.0	57,156	56.3
		Female	0	0.0	19,052	18.8	25,403	25.0	0	0.0	0	0.0	44,455	43.8
		Subtotal	0	0.0	38,104	37.5	62,096	61.1	1,411	1.4	0	0.0	101,611	100.0
		Male Mean Length	–		572		595		563		–			
		SE	–		6		5		38		–			
		Range	–		510–620		500–680		525–600		–			
		n	–		27		52		2		–			
		Female Mean Length	–		545		556		–		–			
		SE	–		5		5		–		–			
		Range	–		480–590		490–620		–		–			
		n	–		27		36		–		–			
7/5–6 (7/1–7)	140	Male	0	0.0	54,294	25.0	54,294	25.0	0	0.0	0	0.0	108,589	50.0
		Female	1,551	0.7	62,051	28.6	44,987	20.7	0	0.0	0	0.0	108,589	50.0
		Subtotal	1,551	0.7	116,345	53.6	99,281	45.7	0	0.0	0	0.0	217,177	100.0
		Male Mean Length	–		581		593		–		–			
		SE	–		4		5		–		–			
		Range	–		530–620		510–660		–		–			
		n	–		35		35		–		–			
		Female Mean Length	480		539		552		–		–			
		SE	–		3		5		–		–			
		Range	–		480–580		490–610		–		–			
		n	1		40		29		–		–			

-continued-

Sample Dates (Strata Dates)	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)			
			N	%	N	%	N	%	N	%	N	%	N	%
7/11, 13 (7/8–13)	140	Male	0	0.0	34,444	22.1	34,444	22.1	1,111	0.7	0	0.0	69,999	45.0
		Female	1,111	0.7	50,000	32.1	34,444	22.1	0	0.0	0	0.0	85,555	55.0
		Subtotal	1,111	0.7	84,444	54.3	68,888	44.3	1,111	0.7	0	0.0	155,554	100.0
		Male Mean Length	–		583		605		620		–			
		SE	–		4		5		–		–			
		Range	–		550–630		550–660		–		–			
		n	–		31		31		1		–			
		Female Mean Length	530		542		553		–		–			
		SE	–		3		6		–		–			
		Range	–		500–590		480–620		–		–			
		n	1		45		31		–		–			
7/17, 19–20 (7/14–26)	85	Male	0	0.0	27,701	16.5	39,573	23.5	1,979	1.2	0	0.0	69,253	41.2
		Female	0	0.0	49,466	29.4	49,466	29.4	0	0.0	0	0.0	98,933	58.8
		Subtotal	0	0.0	77,168	45.9	89,040	52.9	1,979	1.2	0	0.0	168,186	100.0
		Male Mean Length	–		580		590		620		–			
		SE	–		5		6		–		–			
		Range	–		540–610		540–650		–		–			
		n	–		14		20		1		–			
		Female Mean Length	–		541		547		–		–			
		SE	–		5		6		–		–			
		Range	–		490–580		470–600		–		–			
		n	–		25		25		–		–			

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Sample Dates (Strata Dates)	Sample Size		Brood Year (Age)											
			2008		2007		2006		2005		2004		Total	
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)			
			N	%	N	%	N	%	N	%	N	%	N	%
Season	509	Male	0	0.0	135,492	21.1	165,004	25.7	4,501	0.7	0	0.0	304,997	47.5
		Female	2,662	0.4	180,569	28.1	154,300	24.0	0	0.0	0	0.0	337,531	52.5
		Total	2,662	0.4	316,060	49.2	319,304	49.7	4,501	0.7	0	0.0	642,528	100.0
		Male Mean Length	—		580		596		606		—			
		SE	—		2		3		38		—			
		Range	—		510–630		500–680		525–620		—			
		n	—		107		138		4		—			
		Female Mean Length	501		541		551		—		—			
		SE	—		2		3		—		—			
		Range	480–530		480–590		470–620		—		—			
		n	2		137		121		—		—			

Appendix B10.—Gisasa River weir summer chum salmon escapement, age and sex composition, and mean length (mm), 2011.

Sample Dates (Strata Dates)	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		N	%
			N	%	N	%	N	%	N	%	N	%	N	%
6/20–29; 7/3 (6/18–7/3)	322	Male	0	0.0	3,289	21.1	5,949	38.2	0	0.0	0	0.0	9,238	59.3
		Female	0	0.0	2,563	16.5	3,773	24.2	0	0.0	0	0.0	6,336	40.7
		Subtotal	0	0.0	5,852	37.6	9,722	62.4	0	0.0	0	0.0	15,574	100.0
		Male Mean Length	—		578		594		—		—			
		SE	—		3		3		—		—			
		Range	—		520–635		530–680		—		—			
		n	—		68		123		—		—			
		Female Mean Length	—		558		567		—		—			
		SE	—		3		3		—		—			
		Range	—		500–620		520–670		—		—			
	n	—		53		78		—		—				
7/4–6, 10 (7/4–10)	140	Male	222	0.7	8,454	27.1	6,897	22.1	0	0.0	0	0.0	15,573	50.0
		Female	0	0.0	9,789	31.4	5,784	18.6	0	0.0	0	0.0	15,573	50.0
		Subtotal	222	0.7	18,243	58.6	12,681	40.7	0	0.0	0	0.0	31,146	100.0
		Male Mean Length	560		571		585		—		—			
		SE	—		4		5		—		—			
		Range	—		530–625		525–620		—		—			
		n	1		38		31		—		—			
		Female Mean Length	—		551		552		—		—			
		SE	—		4		5		—		—			
		Range	—		490–625		500–585		—		—			
	n	—		44		26		—		—				

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Sample Dates (Strata Dates)	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		N	%
			N	%	N	%	N	%	N	%	N	%	N	%
7/11–13, 17–18 (7/11–18)	180	Male	0	0.0	5,253	21.1	4,838	19.4	0	0.0	0	0.0	10,091	40.6
		Female	276	1.1	6,635	26.7	7,880	31.7	0	0.0	0	0.0	14,792	59.4
		Subtotal	276	1.1	11,889	47.8	12,718	51.1	0	0.0	0	0.0	24,883	100.0
		Male Mean Length	–		565		576		–		–			
		SE	–		4		5		–		–			
		Range	–		510–610		530–635		–		–			
		n	–		38		35		–		–			
		Female Mean Length	520		534		541		–		–			
		SE	10		4		3		–		–			
		Range	510–530		445–595		490–585		–		–			
		n	2		48		57		–		–			
7/19–20, 24–27 (7/19–30)	204	Male	356	1.5	5,337	22.1	2,135	8.8	119	0.5	0	0.0	7,946	32.8
		Female	474	2.0	11,148	46.1	4,625	19.1	0	0.0	0	0.0	16,247	67.2
		Subtotal	830	3.4	16,484	68.1	6,760	27.9	119	0.5	0	0.0	24,193	100.0
		Male Mean Length	557		551		562		600		–			
		SE	12		5		8		–		–			
		Range	545–580		485–610		485–610		–		–			
		n	3		45		18		1		–			
		Female Mean Length	518		518		533		–		–			
		SE	8		2		4		–		–			
		Range	505–535		465–575		500–595		–		–			
		n	4		94		39		–		–			

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Sample Dates (Strata Dates)	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)			
			N	%	N	%	N	%	N	%	N	%	N	%
Season	846	Male	578	0.6	22,333	23.3	19,819	20.7	119	0.1	0	0.0	42,848	44.7
		Female	751	0.8	30,135	31.5	22,062	23.0	0	0.0	0	0.0	52,948	55.3
		Total	1,329	1.4	52,468	54.8	41,880	43.7	119	0.1	0	0.0	95,796	100.0
		Male Mean Length	559		566		578		600		—			
		SE	12		2		3		—		—			
		Range	545–580		485–635		485–680		—		—			
		n	4		189		207		1		—			
		Female Mean Length	519		540		547		—		—			
		SE	6		2		2		—		—			
		Range	505–535		445–625		490–670		—		—			
		n	6		239		200		—		—			

Appendix B11.–Henshaw Creek weir summer chum salmon escapement, age and sex composition, and mean length (mm), 2011.

Sample Dates (Strata Dates)	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)			
			N	%	N	%	N	%	N	%	N	%	N	%
7/4–6, 9–11 (6/24–7/12)	190	Male	647	1.1	11,641	18.9	17,461	28.4	0	0.0	0	0.0	29,749	48.4
		Female	323	0.5	13,904	22.6	17,461	28.4	0	0.0	0	0.0	31,689	51.6
		Subtotal	970	1.6	25,545	41.6	34,923	56.8	0	0.0	0	0.0	61,438	100.0
		Male Mean Length	544		567		578		–		–			
		SE	14		4		3		–		–			
		Range	530–557		500–610		510–635		–		–			
		n	2		36		54		–		–			
		Female Mean Length	550		550		554		–		–			
		SE	–		4		5		–		–			
		Range	550–550		430–590		330–600		–		–			
		n	1		43		54		–		–			
7/13, 15, 17 (7/13–17)	85	Male	999	1.2	17,974	21.2	15,977	18.8	0	0.0	0	0.0	34,949	41.2
		Female	0	0.0	17,974	21.2	31,954	37.6	0	0.0	0	0.0	49,928	58.8
		Subtotal	999	1.2	35,948	42.4	47,931	56.5	0	0.0	0	0.0	84,877	100.0
		Male Mean Length	575		577		561		–		–			
		SE	–		5		6		–		–			
		Range	575–575		550–615		515–600		–		–			
		n	1		18		16		–		–			
		Female Mean Length	–		544		558		–		–			
		SE	–		7		5		–		–			
		Range	–		480–590		510–635		–		–			
		n	–		18		32		–		–			

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Sample Dates (Strata Dates)	Sample Size		Brood Year (Age)										Total		
			2008		2007		2006		2005		2004				
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		N	%	
			N	%	N	%	N	%	N	%	N	%			
7/19–21 (7/18–24)	85	Male	547	1.2	4,920	10.6	8,200	17.6	0	0.0	0	0.0	13,667	29.4	
		Female	1,093	2.4	13,667	29.4	18,041	38.8	0	0.0	0	0.0	32,802	70.6	
		Subtotal	1,640	3.5	18,588	40.0	26,241	56.5	0	0.0	0	0.0	46,469	100.0	
	Male Mean Length		580		550		562		–		–				
	SE		–		9		7		–		–				
	Range		580–580		510–600		500–600		–		–				
	n		1		9		15		–		–				
	Female Mean Length		533		542		547		–		–				
	SE		23		5		4		–		–				
	Range		510–555		500–595		500–595		–		–				
	n		2		25		33		–		–				
	7/26–27, 29; 8/2 (7/25–8/2)	220	Male	252	0.5	9,076	16.4	8,572	15.5	0	0.0	0	0.0	17,899	32.3
			Female	2,017	3.6	20,673	37.3	14,874	26.8	0	0.0	0	0.0	37,564	67.7
			Subtotal	2,269	4.1	29,748	53.6	23,446	42.3	0	0.0	0	0.0	55,463	100.0
		Male Mean Length		450		553		566		–		–			
SE		–		4		4		–		–					
Range		450–450		480–620		525–605		–		–					
n		1		36		34		–		–					
Female Mean Length		514		531		540		–		–					
SE		10		3		3		–		–					
Range		465–560		440–590		480–590		–		–					
n		8		82		59		–		–					

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Sample Dates (Strata Dates)	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)			
			N	%	N	%	N	%	N	%	N	%	N	%
Season	580	Male	2,444	1.0	43,611	17.6	50,210	20.2	0	0.0	0	0.0	96,265	38.8
		Female	3,434	1.4	66,218	26.7	82,330	33.2	0	0.0	0	0.0	151,982	61.2
		Total	5,878	2.4	109,829	44.2	132,540	53.4	0	0.0	0	0.0	248,247	100.0
		Male Mean Length	540		564		566		—		—			
		SE	14		3		3		—		—			
		Range	450–580		480–620		500–635		—		—			
		n	5		99		119		—		—			
		Female Mean Length	533		542		551		—		—			
		SE	12		3		2		—		—			
		Range	465–560		430–595		330–635		—		—			
		n	11		168		178		—		—			



## **APPENDIX C: FALL CHUM SALMON**

Appendix C1.–Yukon River District 1 fall chum salmon commercial gillnet harvest, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		N	%
			N	%	N	%	N	%	N	%	N	%		
7/18 Period 1	157	Male	71	0.6	4,140	36.9	2,070	18.5	71	0.6	0	0.0	6,352	56.7
		Female	0	0.0	3,141	28.0	1,713	15.3	0	0.0	0	0.0	4,854	43.3
		Subtotal	71	0.6	7,280	65.0	3,783	33.8	71	0.6	0	0.0	11,206	100.0
		Male Mean Length	525		574		586		605		—			
		SE	—		4		5		—		—			
		Range	—		510–635		510–630		—		—			
		n	1		58		29		1		—			
		Female Mean Length	—		565		577		—		—			
		SE	—		3		5		—		—			
		Range	—		520–610		540–620		—		—			
		n	—		44		24		—		—			
7/21 Period 2	101	Male	17	1.0	748	43.6	238	13.9	0	0.0	0	0.0	1,004	58.4
		Female	0	0.0	391	22.8	323	18.8	0	0.0	0	0.0	714	41.6
		Subtotal	17	1.0	1,140	66.3	561	32.7	0	0.0	0	0.0	1,718	100.0
		Male Mean Length	530		574		569		—		—			
		SE	—		5		6		—		—			
		Range	—		520–645		535–625		—		—			
		n	1		44		14		—		—			
		Female Mean Length	—		562		564		—		—			
		SE	—		5		5		—		—			
		Range	—		505–605		520–605		—		—			
		n	—		23		19		—		—			

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Sample Dates	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		N	%
			N	%	N	%	N	%	N	%	N	%		
7/25 Period 3	158	Male	0	0.0	1,974	29.7	924	13.9	0	0.0	0	0.0	2,898	43.7
		Female	0	0.0	2,478	37.3	1,260	19.0	0	0.0	0	0.0	3,739	56.3
		Subtotal	0	0.0	4,453	67.1	2,184	32.9	0	0.0	0	0.0	6,637	100.0
		Male Mean Length	—		573		572		—		—			
		SE	—		4		5		—		—			
		Range	—		520–650		525–615		—		—			
		n	—		47		22		—		—			
		Female Mean Length	—		567		565		—		—			
		SE	—		3		4		—		—			
		Range	—		500–615		525–610		—		—			
		n	—		59		30		—		—			
	8/2 Period 4	157	Male	0	0.0	3,694	43.9	803	9.6	0	0.0	0	0.0	4,497
Female			0	0.0	2,891	34.4	1,017	12.1	0	0.0	0	0.0	3,908	46.5
Subtotal			0	0.0	6,585	78.3	1,820	21.7	0	0.0	0	0.0	8,405	100.0
		Male Mean Length	—		586		598		—		—			
		SE	—		3		9		—		—			
		Range	—		515–640		535–645		—		—			
		n	—		69		15		—		—			
		Female Mean Length	—		573		579		—		—			
		SE	—		3		4		—		—			
		Range	—		530–620		555–610		—		—			
		n	—		54		19		—		—			

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Sample Dates	Sample Size		Brood Year (Age)										Total		
			2008		2007		2006		2005		2004				
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		N	%	
			N	%	N	%	N	%	N	%	N	%			
8/4 Period 5	158	Male	0	0.0	10,113	43.7	2,492	10.8	147	0.6	0	0.0	12,751	55.1	
		Female	0	0.0	9,087	39.2	1,319	5.7	0	0.0	0	0.0	10,406	44.9	
		Subtotal	0	0.0	19,200	82.9	3,811	16.5	147	0.6	0	0.0	23,157	100.0	
		Male Mean Length	—		584		595		590		—				
		SE	—		3		5		—		—				
		Range	—		510–645		560–625		—		—				
		n	—		69		17		1		—				
		Female Mean Length	—		564		583		—		—				
		SE	—		3		6		—		—				
		Range	—		475–610		555–610		—		—				
		n	—		62		9		—		—				
	8/7, 11 Periods 6, 7	156	Male	66	0.6	4,739	46.2	1,185	11.5	0	0.0	0	0.0	5,990	58.3
			Female	0	0.0	2,962	28.8	1,316	12.8	0	0.0	0	0.0	4,278	41.7
Subtotal			66	0.6	7,701	75.0	2,501	24.4	0	0.0	0	0.0	10,268	100.0	
		Male Mean Length	555		580		587		—		—				
		SE	—		3		7		—		—				
		Range	—		535–665		500–640		—		—				
		n	1		72		18		—		—				
		Female Mean Length	—		564		584		—		—				
		SE	—		3		6		—		—				
		Range	—		505–620		535–640		—		—				
		n	—		45		20		—		—				

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Sample Dates	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)			
			N	%	N	%	N	%	N	%	N	%	N	%
8/14, 21 Periods 8, 9, 10	159	Male	284	0.6	13,067	28.9	6,817	15.1	0	0.0	0	0.0	20,168	44.7
		Female	852	1.9	18,748	41.5	5,397	11.9	0	0.0	0	0.0	24,997	55.3
		Subtotal	1,136	2.5	31,814	70.4	12,214	27.0	0	0.0	0	0.0	45,165	100.0
	Male Mean Length		570		587		590		—		—			
	SE		—		5		6		—		—			
	Range		570–570		520–655		540–645		—		—			
	n		1		46		24		—		—			
	Female Mean Length		557		564		582		—		—			
	SE		12		2		4		—		—			
	Range		540–580		515–620		560–635		—		—			
	n		3		66		19		—		—			
8/25, 28 Periods 11, 12, 13	149	Male	217	1.3	7,365	45.6	2,274	14.1	0	0.0	0	0.0	9,855	61.1
		Female	217	1.3	4,549	28.2	1,516	9.4	0	0.0	0	0.0	6,282	38.9
		Subtotal	433	2.7	11,913	73.8	3,791	23.5	0	0.0	0	0.0	16,137	100.0
	Male Mean Length		558		566		591		—		—			
	SE		13		3		8		—		—			
	Range		545–570		495–620		535–655		—		—			
	n		2		68		21		—		—			
	Female Mean Length		510		561		579		—		—			
	SE		15		3		5		—		—			
	Range		495–525		520–595		550–605		—		—			
	n		2		42		14		—		—			

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Sample Dates	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)			
			N	%	N	%	N	%	N	%	N	%	N	%
9/2	78	Male	0	0.0	1,228	24.4	1,034	20.5	0	0.0	0	0.0	2,262	44.9
Periods 14, 15, 16		Female	259	5.1	1,681	33.3	840	16.7	0	0.0	0	0.0	2,780	55.1
		Subtotal	259	5.1	2,909	57.7	1,875	37.2	0	0.0	0	0.0	5,042	100.0
		Male Mean Length	–		594		601		–		–			
		SE	–		8		7		–		–			
		Range	–		540–660		560–655		–		–			
		n	–		19		16		–		–			
		Female Mean Length	535		575		570		–		–			
		SE	6		5		8		–		–			
		Range	520–550		530–620		540–630		–		–			
		n	535		26		13		–		–			
Season <sup>a</sup>	1,273	Male	655	0.5	47,068	36.8	17,838	14.0	218	0.2	0	0.0	65,778	51.5
		Female	1,327	1.0	45,927	36.0	14,703	11.5	0	0.0	0	0.0	61,957	48.5
		Total	1,982	1.6	92,995	72.8	32,540	25.5	218	0.2	0	0.0	127,735	100.0
		Male Mean Length	559		581		590		595		–			
		SE	13		2		3		–		–			
		Range	525–570		495–665		500–655		590–605		–			
		n	6		492		176		2		–			
		Female Mean Length	544		565		580		–		–			
		SE	9		1		2		–		–			
		Range	495–580		475–620		520–640		–		–			
		n	9		421		167		–		–			

*Note:* Commercial fishing gear in Periods 1–3 were restricted to 6 in or less mesh gillnets. All other periods gear was unrestricted mesh size gillnets.

<sup>a</sup> Season total includes all periods regardless of mesh size restrictions.



Appendix C2.–Yukon River District 2 fall chum salmon commercial gillnet harvest, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)										Total			
			2008		2007		2006		2005		2004					
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		N	%		
			N	%	N	%	N	%	N	%	N	%				
8/1 Period 1	155	Male	0	0.0	10,918	44.5	2,848	11.6	0	0.0	0	0.0	13,766	56.1		
		Female	0	0.0	8,228	33.5	2,532	10.3	0	0.0	0	0.0	10,760	43.9		
		Subtotal	0	0.0	19,146	78.1	5,380	21.9	0	0.0	0	0.0	24,526	100.0		
		Male Mean Length	—		597		599		—		—					
		SE	—		3		6		—		—					
		Range	—		560–650		565–650		—		—					
		n	—		69		18		—		—					
		Female Mean Length	—		581		583		—		—					
		SE	—		3		7		—		—					
		Range	—		545–645		535–650		—		—					
		n	—		52		16		—		—					
		8/6 Period 2	159	Male	70	0.6	3,691	33.3	1,880	17.0	70	0.6	0	0.0	5,711	51.6
				Female	0	0.0	4,318	39.0	1,045	9.4	0	0.0	0	0.0	5,363	48.4
				Subtotal	70	0.6	8,009	72.3	2,925	26.4	70	0.6	0	0.0	11,074	100.0
Male Mean Length	535				594		598		625		—					
SE	—				3		5		—		—					
Range	—				555–645		555–655		—		—					
n	1				53		27		1		—					
Female Mean Length	—				579		579		—		—					
SE	—				3		4		—		—					
Range	—				530–640		555–605		—		—					
n	—				62		15		—		—					

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Sample Dates	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		N	%
			N	%	N	%	N	%	N	%	N	%	N	%
8/9 Period 3	78	Male	198	1.3	6,926	44.9	1,187	7.7	0	0.0	0	0.0	8,311	53.8
		Female	198	1.3	5,936	38.5	989	6.4	0	0.0	0	0.0	7,123	46.2
		Subtotal	396	2.6	12,862	83.3	2,177	14.1	0	0.0	0	0.0	15,434	100.0
		Male Mean Length	560		592		593		—		—			
		SE	—		5		11		—		—			
		Range	—		535–660		565–640		—		—			
		n	1		35		6		—		—			
		Female Mean Length	545		570		579		—		—			
		SE	—		4		5		—		—			
		Range	—		525–610		560–590		—		—			
		n	1		30		5		—		—			
8/17, 23 Periods 4, 5, 6	155	Male	0	0.0	16,993	34.2	8,978	18.1	321	0.6	0	0.0	26,291	52.9
		Female	0	0.0	16,031	32.3	7,374	14.8	0	0.0	0	0.0	23,406	47.1
		Subtotal	0	0.0	33,024	66.5	16,352	32.9	321	0.6	0	0.0	49,697	100.0
		Male Mean Length	—		583		605		605		—			
		SE	—		6		4		—		—			
		Range	—		335–655		565–685		—		—			
		n	—		53		28		1		—			
		Female Mean Length	—		576		583		—		—			
		SE	—		4		3		—		—			
		Range	—		520–640		550–605		—		—			
		n	—		50		23		—		—			

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Sample Dates	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)			
			N	%	N	%	N	%	N	%	N	%	N	%
Season	547	Male	268	0.3	38,528	38.2	14,893	14.8	390	0.4	0	0.0	54,079	53.7
		Female	198	0.2	34,514	34.3	11,940	11.9	0	0.0	0	0.0	46,652	46.3
		Total	465	0.5	73,042	72.5	26,834	26.6	390	0.4	0	0.0	100,731	100.0
		Male Mean Length	550		589		601		609		—			
		SE	—		3		3		—		—			
		Range	535–560		335–660		555–685		605–625		—			
		n	2		210		79		2		—			
		Female Mean Length	545		577		582		—		—			
		SE	—		2		2		—		—			
		Range	—		520–645		535–650		—		—			
		n	1		194		59		—		—			

*Note:* All commercial fishing periods were unrestricted mesh size gillnets.

Appendix C3.—Yukon River Subdistricts 5-B and 5-C fall chum salmon commercial fish wheel harvest, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		N	%
			N	%	N	%	N	%	N	%	N	%	N	%
8/10, 12 Season	113	Male	0	0.0	298	23.9	287	23.0	0	0.0	0	0.0	584	46.9
		Female	55	4.4	364	29.2	243	19.5	0	0.0	0	0.0	662	53.1
		Total	55	4.4	662	53.1	529	42.5	0	0.0	0	0.0	1,246	100.0
		Male Mean Length	—		612		615		—		—			
		SE	—		5		6		—		—			
		Range	—		550–670		565–680		—		—			
		n	—		27		26		—		—			
		Female Mean Length	553		593		594		—		—			
		SE	14		6		5		—		—			
		Range	500–580		540–690		540–660		—		—			
		n	5		33		22		—		—			

Appendix C4.–Yukon River Subdistrict 5-A Tanana fall chum salmon subsistence fish wheel harvest, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		N	%
			N	%	N	%	N	%	N	%	N	%	N	%
8/27 Stratum 1	92	Male	0	0.0	39	42.4	4	4.3	0	0.0	0	0.0	43	46.7
		Female	3	3.3	42	45.7	4	4.3	0	0.0	0	0.0	49	53.3
		Subtotal	3	3.3	81	88.0	8	8.7	0	0.0	0	0.0	92	100.0
		Male Mean Length	—		605		630		—		—			
		SE	—		6		9		—		—			
		Range	—		520–670		610–650		—		—			
		n	—		39		4		—		—			
		Female Mean Length	553		587		575		—		—			
		SE	13		5		10		—		—			
		Range	540–580		510–660		560–600		—		—			
		n	3		42		4		—		—			
9/10 Stratum 2	104	Male	1	1.0	43	41.3	5	4.8	0	0.0	0	0.0	49	47.1
		Female	4	3.8	47	45.2	4	3.8	0	0.0	0	0.0	55	52.9
		Subtotal	5	4.8	90	86.5	9	8.7	0	0.0	0	0.0	104	100.0
		Male Mean Length	540		602		624		—		—			
		SE	—		5		15		—		—			
		Range	—		510–680		570–660		—		—			
		n	1		43		5		—		—			
		Female Mean Length	595		599		598		—		—			
		SE	10		5		6		—		—			
		Range	580–620		480–690		580–610		—		—			
		n	4		47		4		—		—			

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Sample Dates	Sample Size		Brood Year (Age)										Total		
			2008		2007		2006		2005		2004				
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)				
			N	%	N	%	N	%	N	%	N	%	N	%	
9/18 Stratum 3	97	Male	5	5.2	36	37.1	1	1.0	0	0.0	0	0.0	42	43.3	
		Female	5	5.2	44	45.4	6	6.2	0	0.0	0	0.0	55	56.7	
		Subtotal	10	10.3	80	82.5	7	7.2	0	0.0	0	0.0	97	100.0	
	Male Mean Length	564		581		550		—		—					
		SE	21		11		—		—		—				
		Range	520–640		340–690		—		—		—				
	n	5		36		1		—		—					
		Female Mean Length	560		565		595		—		—				
			SE	5		5		7		—		—			
	Range		550–580		500–670		580–620		—		—				
	n	5		44		6		—		—					
		Total	Male	6	2.0	118	40.3	10	3.4	0	0.0	0	0.0	134	45.7
			Female	12	4.1	133	45.4	14	4.8	0	0.0	0	0.0	159	54.3
	Total		18	6.1	251	85.7	24	8.2	0	0.0	0	0.0	293	100.0	
	Male Mean Length	560		597		619		—		—					
SE		17		4		11		—		—					
Range		520–640		340–690		550–660		—		—					
n	6		118		10		—		—						
	Female Mean Length	570		584		590		—		—					
		SE	7		3		5		—		—				
Range		540–620		480–690		560–620		—		—					
n	12		133		14		—		—						

Appendix C5.–Lower Yukon River test fishery Big Eddy site fall chum salmon 6.0 in mesh drift gillnet, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		N	%
			N	%	N	%	N	%	N	%	N	%	N	%
7/18–19, 27–29 Quartile 1	64	Male	1	1.6	19	29.7	10	15.6	0	0.0	0	0.0	30	46.9
		Female	0	0.0	21	32.8	13	20.3	0	0.0	0	0.0	34	53.1
		Subtotal	1	1.6	40	62.5	23	35.9	0	0.0	0	0.0	64	100.0
		Male Mean Length	545		595		615		–		–			
		SE	–		5		5		–		–			
		Range	–		555–640		595–655		–		–			
		n	1		19		10		–		–			
		Female Mean Length	–		583		591		–		–			
		SE	–		7		9		–		–			
		Range	–		535–635		530–655		–		–			
		n	–		21		13		–		–			
	7/30–8/3, 5–6, 8 Quartile 2	104	Male	0	0.0	41	39.4	7	6.7	1	1.0	0	0.0	49
Female			0	0.0	33	31.7	21	20.2	1	1.0	0	0.0	55	52.9
Subtotal			0	0.0	74	71.2	28	26.9	2	1.9	0	0.0	104	100.0
		Male Mean Length	–		585		610		615		–			
		SE	–		5		5		–		–			
		Range	–		530–695		595–630		–		–			
		n	–		41		7		1		–			
		Female Mean Length	–		582		592		595		–			
		SE	–		5		6		–		–			
		Range	–		506–670		535–630		–		–			
		n	–		33		21		1		–			

-continued-

Sample Dates	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)			
			N	%	N	%	N	%	N	%	N	%	N	%
8/12–20 Quartile 3	138	Male	1	0.7	36	26.1	14	10.1	0	0.0	0	0.0	51	37.0
		Female	0	0.0	63	45.7	24	17.4	0	0.0	0	0.0	87	63.0
		Subtotal	1	0.7	99	71.7	38	27.5	0	0.0	0	0.0	138	100.0
		Male Mean Length	530		593		613		–		–			
		SE	–		4		8		–		–			
		Range	–		535–660		560–665		–		–			
		n	1		36		14		–		–			
		Female Mean Length	–		578		586		–		–			
		SE	–		3		6		–		–			
		Range	–		515–625		510–650		–		–			
		n	–		63		24		–		–			
8/21–24, 26–27, 8/31–9/3, 8–9, 13 Quartile 4	114	Male	0	0.0	28	24.6	15	13.2	0	0.0	0	0.0	43	37.7
		Female	2	1.8	45	39.5	24	21.1	0	0.0	0	0.0	71	62.3
		Subtotal	2	1.8	73	64.0	39	34.2	0	0.0	0	0.0	114	100.0
		Male Mean Length	–		601		598		–		–			
		SE	–		6		9		–		–			
		Range	–		545–650		530–655		–		–			
		n	–		28		15		–		–			
		Female Mean Length	573		583		595		–		–			
		SE	18		4		5		–		–			
		Range	555–590		510–630		550–660		–		–			
		n	2		45		24		–		–			

-continued-



Sample Dates	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)			
			N	%	N	%	N	%	N	%	N	%	N	%
Total	420	Male	2	0.5	124	29.5	46	11.0	1	0.2	0	0.0	173	41.2
		Female	2	0.5	162	38.6	82	19.5	1	0.2	0	0.0	247	58.8
		Total	4	1.0	286	68.1	128	30.5	2	0.5	0	0.0	420	100.0
		Male Mean Length	538		593		608		615		—			
		SE	8		3		4		—		—			
		Range	530–545		530–695		530–665		—		—			
		n	2		124		46		1		—			
		Female Mean Length	573		581		591		595		—			
		SE	18		2		3		—		—			
		Range	555–590		506–670		510–660		—		—			
		n	2		162		82		1		—			

Appendix C6.–Lower Yukon River test fishery Middle Mouth site fall chum salmon 6.0 in mesh drift gillnet, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		N	%
			N	%	N	%	N	%	N	%	N	%	N	%
7/16–21, 24, 26–29 Quartile 1	200	Male	1	0.5	74	37.0	36	18.0	0	0.0	0	0.0	111	55.5
		Female	0	0.0	53	26.5	36	18.0	0	0.0	0	0.0	89	44.5
		Subtotal	1	0.5	127	63.5	72	36.0	0	0.0	0	0.0	200	100.0
		Male Mean Length	555		597		593		–		–			
		SE	–		4		6		–		–			
		Range	–		535–670		525–660		–		–			
		n	1		74		36		–		–			
		Female Mean Length	–		587		568		–		–			
		SE	–		3		5		–		–			
		Range	–		510–645		510–625		–		–			
		n	–		53		36		–		–			
7/30–8/2, 5–8 Quartile 2	246	Male	0	0.0	92	37.4	16	6.5	1	0.4	0	0.0	109	44.3
		Female	2	0.8	89	36.2	46	18.7	0	0.0	0	0.0	137	55.7
		Subtotal	2	0.8	181	73.6	62	25.2	1	0.4	0	0.0	246	100.0
		Male Mean Length	–		602		629		595		–			
		SE	–		3		7		–		–			
		Range	–		520–685		565–670		–		–			
		n	–		92		16		1		–			
		Female Mean Length	568		590		596		–		–			
		SE	13		2		3		–		–			
		Range	555–580		535–635		535–635		–		–			
		n	2		89		46		–		–			

-continued-

Sample Dates	Sample Size		Brood Year (Age)										Total		
			2008		2007		2006		2005		2004				
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		N	%	
			N	%	N	%	N	%	N	%	N	%			
8/9–10, 12–20 Quartile 3	239	Male	2	0.8	71	29.7	23	9.6	0	0.0	0	0.0	96	40.2	
		Female	1	0.4	110	46.0	32	13.4	0	0.0	0	0.0	143	59.8	
		Subtotal	3	1.3	181	75.7	55	23.0	0	0.0	0	0.0	239	100.0	
		Male Mean Length		558		595		611		–		–			
		SE		3		3		6		–		–			
		Range		555–560		520–690		570–675		–		–			
		n		2		71		23		–		–			
		Female Mean Length		565		584		597		–		–			
		SE		–		2		4		–		–			
		Range		–		530–645		560–645		–		–			
		n		1		110		32		–		–			
8/21–9/4, 8–9, 12 Quartile 4	187	Male	1	0.5	42	22.5	18	9.6	1	0.5	0	0.0	62	33.2	
		Female	4	2.1	85	45.5	36	19.3	0	0.0	0	0.0	125	66.8	
		Subtotal	5	2.7	127	67.9	54	28.9	1	0.5	0	0.0	187	100.0	
		Male Mean Length		580		589		596		630		–			
		SE		–		6		6		–		–			
		Range		–		445–670		555–640		–		–			
		n		1		42		18		1		–			
		Female Mean Length		568		578		595		–		–			
		SE		12		3		4		–		–			
		Range		540–590		525–695		550–680		–		–			
		n		4		85		36		–		–			

-continued-

Appendix C6.–Page 3 of 3.

Sample Dates	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)			
			N	%	N	%	N	%	N	%	N	%	N	%
Total	872	Male	4	0.5	279	32.0	93	10.7	2	0.2	0	0.0	378	43.3
		Female	7	0.8	337	38.6	150	17.2	0	0.0	0	0.0	494	56.7
		Total	11	1.3	616	70.6	243	27.9	2	0.2	0	0.0	872	100.0
		Male Mean Length	563		597		604		613		—			
		SE	6		2		3		18		—			
		Range	555–580		445–690		525–675		595–630		—			
		n	4		279		93		2		—			
		Female Mean Length	567		585		589		—		—			
		SE	7		1		2		—		—			
		Range	540–590		510–695		510–680		—		—			
		n	7		337		150		—		—			

Appendix C7.–Lower Yukon River test fishery combined Big Eddy and Middle Mouth sites fall chum salmon 6.0 in mesh drift gillnet, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		N	%
			N	%	N	%	N	%	N	%	N	%	N	%
7/16–21, 24, 26–29 Quartile 1	264	Male	2	0.8	93	35.2	46	17.4	0	0.0	0	0.0	141	53.4
		Female	0	0.0	74	28.0	49	18.6	0	0.0	0	0.0	123	46.6
		Subtotal	2	0.8	167	63.3	95	36.0	0	0.0	0	0.0	264	100.0
		Male Mean Length	550		596		598		–		–			
		SE	5		3		5		–		–			
		Range	545–555		535–670		525–660		–		–			
		n	2		93		46		–		–			
		Female Mean Length	–		585		574		–		–			
		SE	–		3		4		–		–			
		Range	–		510–645		510–655		–		–			
		n	–		74		49		–		–			
7/30–8/3, 5–8 Quartile 2	350	Male	0	0.0	133	38.0	23	6.6	2	0.6	0	0.0	158	45.1
		Female	2	0.6	122	34.9	67	19.1	1	0.3	0	0.0	192	54.9
		Subtotal	2	0.6	255	72.9	90	25.7	3	0.9	0	0.0	350	100.0
		Male Mean Length	–		597		623		605		–			
		SE	–		3		6		10		–			
		Range	–		520–695		565–670		595–615		–			
		n	–		133		23		2		–			
		Female Mean Length	568		588		595		595		–			
		SE	13		2		3		–		–			
		Range	555–580		506–670		535–635		–		–			
		n	2		122		67		1		–			

-continued-

Sample Dates	Sample Size		Brood Year (Age)										Total		
			2008		2007		2006		2005		2004				
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		N	%	
			N	%	N	%	N	%	N	%	N	%			
8/9–10, 12–20 Quartile 3	377	Male	3	0.8	107	28.4	37	9.8	0	0.0	0	0.0	147	39.0	
		Female	1	0.3	173	45.9	56	14.9	0	0.0	0	0.0	230	61.0	
		Subtotal	4	1.1	280	74.3	93	24.7	0	0.0	0	0.0	377	100.0	
		Male Mean Length		548		594		612		–		–			
		SE		9		3		5		–		–			
		Range		530–560		520–690		560–675		–		–			
		n		3		107		37		–		–			
		Female Mean Length		565		582		592		–		–			
		SE		–		2		3		–		–			
		Range		–		515–645		510–650		–		–			
		n		1		173		56		–		–			
8/21–9/4, 8–9, 13 Quartile 4	301	Male	1	0.3	70	23.3	33	11.0	1	0.3	0	0.0	105	34.9	
		Female	6	2.0	130	43.2	60	19.9	0	0.0	0	0.0	196	65.1	
		Subtotal	7	2.3	200	66.4	93	30.9	1	0.3	0	0.0	301	100.0	
		Male Mean Length		580		594		597		630		–			
		SE		–		4		5		–		–			
		Range		580–580		445–670		530–655		–		–			
		n		1		70		33		1		–			
		Female Mean Length		569		580		595		–		–			
		SE		9		2		3		–		–			
		Range		540–590		510–695		550–680		–		–			
		n		6		130		60		–		–			

-continued-

Sample Dates	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)			
			N	%	N	%	N	%	N	%	N	%	N	%
Total	1,292	Male	6	0.5	403	31.2	139	10.8	3	0.2	0	0.0	551	42.6
		Female	9	0.7	499	38.6	232	18.0	1	0.1	0	0.0	741	57.4
		Total	15	1.2	902	69.8	371	28.7	4	0.3	0	0.0	1,292	100.0
		Male Mean Length	554		596		605		613		—			
		SE	7		2		3		10		—			
		Range	530–580		445–695		525–675		595–630		—			
		n	6		403		139		3		—			
		Female Mean Length	568		583		590		595		—			
		SE	6		1		2		—		—			
		Range	540–590		506–695		510–680		—		—			
		n	9		499		232		1		—			

Appendix C8.—Yukon River Mountain Village test fishery fall chum salmon 5 7/8 in mesh drift gillnet, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)			
			N	%	N	%	N	%	N	%	N	%	N	%
7/18–23, 25–31 Stratum 1	114	Male	1	0.9	44	38.6	14	12.3	1	0.9	0	0.0	60	52.6
		Female	1	0.9	39	34.2	14	12.3	0	0.0	0	0.0	54	47.4
		Subtotal	2	1.8	83	72.8	28	24.6	1	0.9	0	0.0	114	100.0
		Male Mean Length	540		591		589		630		–			
		SE	–		5		9		–		–			
		Range	–		540–695		540–630		–		–			
		n	1		44		14		1		–			
		Female Mean Length	605		582		570		–		–			
		SE	–		4		6		–		–			
		Range	–		530–640		550–625		–		–			
		n	1		39		14		–		–			
8/1–3, 5 Stratum 2	77	Male	0	0.0	32	41.6	12	15.6	0	0.0	0	0.0	44	57.1
		Female	0	0.0	28	36.4	5	6.5	0	0.0	0	0.0	33	42.9
		Subtotal	0	0.0	60	77.9	17	22.1	0	0.0	0	0.0	77	100.0
		Male Mean Length	–		595		613		–		–			
		SE	–		6		8		–		–			
		Range	–		525–690		575–660		–		–			
		n	–		32		12		–		–			
		Female Mean Length	–		583		608		–		–			
		SE	–		3		6		–		–			
		Range	–		550–620		590–620		–		–			
		n	–		28		5		–		–			

-continued-



Sample Dates	Sample Size		Brood Year (Age)										Total		
			2008		2007		2006		2005		2004				
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)				
			N	%	N	%	N	%	N	%	N	%	N	%	
8/7–12, 15–16, 18–19, 22, 24, 26, 30; 9/1–3, 5 Stratum 3	76	Male	0	0.0	27	35.5	4	5.3	0	0.0	0	0.0	31	40.8	
		Female	0	0.0	34	44.7	11	14.5	0	0.0	0	0.0	45	59.2	
		Subtotal	0	0.0	61	80.3	15	19.7	0	0.0	0	0.0	76	100.0	
		Male Mean Length	–		595		610		–		–				
	SE	–		6		5		–		–					
	Range	–		540–645		600–625		–		–					
	n	–		27		4		–		–					
	Female Mean Length	–		583		586		–		–					
	SE	–		4		4		–		–					
	Range	–		520–635		570–605		–		–					
	n	–		34		11		–		–					
	Total	267	Male	1	0.4	103	38.6	30	11.2	1	0.4	0	0.0	135	50.6
			Female	1	0.4	101	37.8	30	11.2	0	0.0	0	0.0	132	49.4
			Total	2	0.7	204	76.4	60	22.5	1	0.4	0	0.0	267	100.0
			Male Mean Length	540		593		602		630		–			
		SE	–		3		6		–		–				
Range		–		525–695		540–660		–		–					
n		1		103		30		1		–					
Female Mean Length		605		582		582		–		–					
SE		–		2		4		–		–					
Range		–		520–640		550–625		–		–					
n		1		101		30		–		–					

Appendix C9.—Yukon River Eagle sonar test fishery fall chum salmon variable mesh drift gillnet, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		N	%
			N	%	N	%	N	%	N	%	N	%	N	%
8/3, 8, 14–15, 17–18, 23, 25, 27, 8/29–9/6 5.25" Mesh	507	Male	5	1.0	168	33.1	91	17.9	1	0.2	0	0.0	265	52.3
		Female	1	0.2	180	35.5	61	12.0	0	0.0	0	0.0	242	47.7
		Subtotal	6	1.2	348	68.6	152	30.0	1	0.2	0	0.0	507	100.0
		Male Mean Length	597		602		618		640		–			
		SE	16		2		3		–		–			
		Range	545–630		500–670		545–700		–		–			
		n	5		168		91		1		–			
		Female Mean Length	520		579		589		–		–			
		SE	–		2		3		–		–			
		Range	–		480–645		530–665		–		–			
		n	1		180		61		–		–			
8/12, 15, 17, 26, 28–30; 9/2–12 7.5" Mesh	110	Male	1	0.9	60	54.5	39	35.5	0	0.0	0	0.0	100	90.9
		Female	0	0.0	6	5.5	4	3.6	0	0.0	0	0.0	10	9.1
		Subtotal	1	0.9	66	60.0	43	39.1	0	0.0	0	0.0	110	100.0
		Male Mean Length	670		620		633		–		–			
		SE	–		3		5		–		–			
		Range	–		550–670		580–685		–		–			
		n	1		60		39		–		–			
		Female Mean Length	–		587		600		–		–			
		SE	–		14		11		–		–			
		Range	–		545–630		575–625		–		–			
		n	–		6		4		–		–			

-continued-

Sample Dates	Sample Size		Brood Year (Age)										Total	
			2008		2007		2006		2005		2004			
			(0.2)		(0.3)		(0.4)		(0.5)		(0.6)			
			N	%	N	%	N	%	N	%	N	%	N	%
All Mesh	617	Male	6	1.0	228	37.0	130	21.1	1	0.2	0	0	365	59.2
		Female	1	0.2	186	30.1	65	10.5	0	0.0	0	0	252	40.8
		Total	7	1.1	414	67.1	195	31.6	1	0.2	0	0	617	100.0
		Male Mean Length	609		607		622		640		—			
		SE	18		2		3		—		—			
		Range	545–670		500–670		545–700		—		—			
		n	6		228		130		1		—			
		Female Mean Length	520		580		589		—		—			
		SE	—		2		3		—		—			
		Range	—		480–645		530–665		—		—			
		n	1		186		65		—		—			



## **APPENDIX D: COHO SALMON**

Appendix D1.—Yukon River District 1 coho salmon commercial gillnet harvest, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)						Total	
			2008		2007		2006			
			(1.1)		(2.1)		(3.1)		N	%
			N	%	N	%	N	%		
8/2 Periods 1–5	135	Male	246	7.4	1,257	37.8	49	1.5	1,553	46.7
		Female	320	9.6	1,380	41.5	74	2.2	1,774	53.3
		Subtotal	567	17.0	2,637	79.3	123	3.7	3,327	100.0
		Male Mean Length	560		552		548			
		SE	8		4		18			
		Range	520–600		480–605		530–565			
		n	10		51		2			
		Female Mean Length	555		552		547			
		SE	6		3		25			
		Range	515–580		500–585		510–595			
		n	13		56		3			
8/7, 11 Periods 6, 7	124	Male	288	8.1	1,612	45.2	144	4.0	2,044	57.3
		Female	201	5.6	1,238	34.7	86	2.4	1,525	42.7
		Subtotal	489	13.7	2,849	79.8	230	6.5	3,569	100.0
		Male Mean Length	572		557		561			
		SE	7		3		19			
		Range	540–605		500–605		510–625			
		n	10		56		5			
		Female Mean Length	560		555		553			
		SE	7		4		4			
		Range	525–580		480–595		545–560			
		n	7		43		3			

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Sample Dates	Sample Size		Brood Year (Age)						Total	
			2008		2007		2006			
			(1.1)		(2.1)		(3.1)		N	%
			N	%	N	%	N	%		
8/14, 21 Periods 8, 9, 10	125	Male	2,049	8.8	9,312	40.0	0	0.0	11,361	48.8
		Female	1,490	6.4	9,312	40.0	1,117	4.8	11,919	51.2
		Subtotal	3,539	15.2	18,624	80.0	1,117	4.8	23,280	100.0
		Male Mean Length	555		568		—			
		SE	10		4		—			
		Range	500–620		505–625		—			
		n	11		50		—			
		Female Mean Length	568		564		573			
		SE	6		3		6			
		Range	535–590		510–595		555–585			
		n	8		50		6			
8/25, 28; 9/2 Periods 11–16	195	Male	2,099	13.8	5,208	34.4	311	2.1	7,618	50.3
		Female	2,177	14.4	5,208	34.4	155	1.0	7,541	49.7
		Subtotal	4,276	28.2	10,417	68.7	466	3.1	15,159	100.0
		Male Mean Length	568		566		580			
		SE	8		4		5			
		Range	440–630		500–635		565–590			
		n	27		67		4			
		Female Mean Length	567		567		583			
		SE	4		2		23			
		Range	525–615		515–605		560–605			
		n	28		67		2			

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Sample Dates	Sample Size		Brood Year (Age)							
			2008		2007		2006		Total	
			(1.1)		(2.1)		(3.1)			
			N	%	N	%	N	%	N	%
Season <sup>a</sup>	579	Male	4,682	10.3	17,389	38.4	504	1.1	22,575	49.8
		Female	4,188	9.2	17,138	37.8	1,433	3.2	22,760	50.2
		Total	8,870	19.6	34,527	76.2	1,937	4.3	45,335	100.0
		Male Mean Length	561		565		572			
		SE	6		3		6			
		Range	440–630		480–635		510–625			
		n	58		224		11			
		Female Mean Length	566		563		573			
		SE	4		2		8			
		Range	515–615		480–605		510–605			
		n	56		216		14			

*Note:* Commercial fishing gear was restricted to 6 in or less mesh size gillnets in Periods 1–3. All other periods gear was unrestricted mesh size gillnets.

<sup>a</sup> Season total includes all periods regardless of mesh size.



Appendix D2.–Yukon River District 2 coho salmon commercial gillnet harvest, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)							
			2008		2007		2006		Total	
			(1.1)		(2.1)		(3.1)			
			N	%	N	%	N	%	N	%
8/9, 17, 23 Season	195	Male	2,108	8.7	11,162	46.2	372	1.5	13,642	56.4
		Female	2,604	10.8	7,565	31.3	372	1.5	10,542	43.6
		Total	4,713	19.5	18,727	77.4	744	3.1	24,184	100.0
		Male Mean Length	570		561		553			
		SE	6		3		10			
		Range	510–610		450–620		535–570			
		n	17		90		3			
		Female Mean Length	556		562		533			
		SE	5		3		7			
		Range	495–595		495–605		520–545			
		n	21		61		3			

*Note:* All commercial fishing periods were unrestricted mesh size gillnets.

Appendix D3.–Lower Yukon River test fishery (Big Eddy site) coho salmon 6.0 in mesh drift gillnet, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)						Total	
			2008		2007		2006			
			(1.1)		(2.1)		(3.1)		N	%
7/28–31; 8/2–6, 8–9, 12–13 Quartile 1	49	Male	9	18.4	20	40.8	0	0.0	29	59.2
		Female	4	8.2	13	26.5	3	6.1	20	40.8
		Subtotal	13	26.5	33	67.3	3	6.1	49	100.0
		Male Mean Length	550		567		–			
		SE	9		5		–			
		Range	515–595		505–610		–			
		n	9		20		–			
		Female Mean Length	588		569		560			
		SE	7		5		9			
		Range	570–600		540–600		545–575			
		n	4		13		3			
8/15–17, 19 Quartile 2	42	Male	6	14.3	10	23.8	0	0.0	16	38.1
		Female	8	19.0	18	42.9	0	0.0	26	61.9
		Subtotal	14	33.3	28	66.7	0	0.0	42	100.0
		Male Mean Length	577		578		–			
		SE	12		11		–			
		Range	525–610		510–635		–			
		n	6		10		–			
		Female Mean Length	573		573		–			
		SE	9		4		–			
		Range	530–605		535–600		–			
		n	8		18		–			
8/20 Quartile 3	19	Male	2	10.5	10	52.6	0	0.0	12	63.2
		Female	1	5.3	6	31.6	0	0.0	7	36.8
		Subtotal	3	15.8	16	84.2	0	0.0	19	100.0
		Male Mean Length	563		576		–			
		SE	28		6		–			
		Range	535–590		550–610		–			
		n	2		10		–			
		Female Mean Length	560		569		–			
		SE	–		11		–			
		Range	560–560		535–605		–			
		n	1		6		–			

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Sample Dates	Sample Size		Brood Year (Age)							
			2008		2007		2006		Total	
			(1.1)		(2.1)		(3.1)			
			N	%	N	%	N	%	N	%
8/21–24, 26–28, 8/31–9/4, 8 Quartile 4	100	Male	15	15.0	30	30.0	2	2.0	47	47.0
		Female	14	14.0	37	37.0	2	2.0	53	53.0
		Subtotal	29	29.0	67	67.0	4	4.0	100	100.0
		Male Mean Length	577		580		625			
		SE	9		7		30			
		Range	525–635		475–650		595–655			
		n	15		30		2			
		Female Mean Length	585		575		605			
		SE	5		4		5			
		Range	560–620		510–620		600–610			
		n	14		37		2			
Total	210	Male	32	15.2	70	33.3	2	1.0	104	49.5
		Female	27	12.9	74	35.2	5	2.4	106	50.5
		Total	59	28.1	144	68.6	7	3.3	210	100.0
		Male Mean Length	568		576		625			
		SE	6		4		30			
		Range	515–635		475–650		595–655			
		n	32		70		2			
		Female Mean Length	581		573		578			
		SE	4		3		12			
		Range	530–620		510–620		545–610			
		n	27		74		5			

Appendix D4.–Lower Yukon River test fishery (Middle Mouth site) coho salmon 6.0 in mesh drift gillnet, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)						Total	
			2008		2007		2006			
			(1.1)		(2.1)		(3.1)			
			N	%	N	%	N	%	N	%
7/28–29; 8/1–2, 5–10, 12–14 Quartile 1	68	Male	4	5.9	22	32.4	3	4.4	29	42.6
		Female	10	14.7	27	39.7	2	2.9	39	57.4
		Subtotal	14	20.6	49	72.1	5	7.4	68	100.0
		Male Mean Length	580		576		563			
		SE	15		7		14			
		Range	560–625		535–630		545–590			
		n	4		22		3			
		Female Mean Length	582		576		555			
		SE	5		4		20			
		Range	550–600		535–610		535–575			
		n	10		27		2			
8/15–19 Quartile 2	32	Male	1	3.1	13	40.6	1	3.1	15	46.9
		Female	6	18.8	11	34.4	0	0.0	17	53.1
		Subtotal	7	21.9	24	75.0	1	3.1	32	100.0
		Male Mean Length	610		572		610			
		SE	–		7		–			
		Range	610–610		525–610		610–610			
		n	1		13		1			
		Female Mean Length	583		583		–			
		SE	10		4		–			
		Range	550–610		555–605		–			
		n	6		11		–			
8/20 Quartile 3	18	Male	2	11.1	5	27.8	0	0.0	7	38.9
		Female	1	5.6	10	55.6	0	0.0	11	61.1
		Subtotal	3	16.7	15	83.3	0	0.0	18	100.0
		Male Mean Length	590		558		–			
		SE	20		16		–			
		Range	570–610		520–610		–			
		n	2		5		–			
		Female Mean Length	610		583		–			
		SE	–		5		–			
		Range	610–610		565–610		–			
		n	1		10		–			

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Sample Dates	Sample Size		Brood Year (Age)							
			2008		2007		2006		Total	
			(1.1)		(2.1)		(3.1)			
			N	%	N	%	N	%	N	%
8/21–24, 26–27, 8/29–9/4, 8–9, 12–13 Quartile 4	88	Male	9	10.2	32	36.4	0	0.0	41	46.6
		Female	14	15.9	28	31.8	5	5.7	47	53.4
		Subtotal	23	26.1	60	68.2	5	5.7	88	100.0
		Male Mean Length	576		573		–			
		SE	13		6		–			
		Range	490–615		520–635		–			
		n	9		32		–			
		Female Mean Length	585		575		584			
		SE	5		5		7			
		Range	560–635		510–615		565–605			
		n	14		28		5			
Total	206	Male	16	7.8	72	35.0	4	1.9	92	44.7
		Female	31	15.0	76	36.9	7	3.4	114	55.3
		Total	47	22.8	148	71.8	11	5.3	206	100.0
		Male Mean Length	581		573		575			
		SE	9		4		15			
		Range	490–625		520–635		545–610			
		n	16		72		4			
		Female Mean Length	584		578		576			
		SE	3		2		9			
		Range	550–635		510–615		535–605			
		n	31		76		7			

Appendix D5.–Lower Yukon River test fishery (combined Big Eddy and Middle sites) coho salmon 6.0 in mesh drift gillnet, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)						Total	
			2008		2007		2006			
			(1.1)		(2.1)		(3.1)		N	%
			N	%	N	%	N	%	N	%
7/28–8/10, 12–14 Quartile 1	117	Male	13	11.1	42	35.9	3	2.6	58	49.6
		Female	14	12.0	40	34.2	5	4.3	59	50.4
		Subtotal	27	23.1	82	70.1	8	6.8	117	100.0
		Male Mean Length	559		572		563			
		SE	8		4		14			
		Range	515–625		505–630		545–590			
		n	13		42		3			
		Female Mean Length	583		574		558			
		SE	4		3		8			
		Range	550–600		535–610		535–575			
		n	14		40		5			
		8/15–19 Quartile 2	74	Male	7	9.5	23	31.1	1	1.4
Female	14			18.9	29	39.2	0	0.0	43	58.1
Subtotal	21			28.4	52	70.3	1	1.4	74	100.0
Male Mean Length	581			574		610				
SE	11			6		–				
Range	525–610			510–635		–				
n	7			23		1				
Female Mean Length	577			577		–				
SE	7			3		–				
Range	530–610			535–605		–				
n	14			29		–				
8/20 Quartile 3	37			Male	4	10.8	15	40.5	0	0.0
		Female	2	5.4	16	43.2	0	0.0	18	48.6
		Subtotal	6	16.2	31	83.8	0	0.0	37	100.0
		Male Mean Length	576		570		–			
		SE	16		7		–			
		Range	535–610		520–610		–			
		n	4		15		–			
		Female Mean Length	585		578		–			
		SE	25		5		–			
		Range	560–610		535–610		–			
		n	2		16		–			

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Sample Dates	Sample Size		Brood Year (Age)							
			2008		2007		2006		Total	
			(1.1)		(2.1)		(3.1)			
			N	%	N	%	N	%	N	%
8/21–24, 8/26–9/4, 8–9, 12–13 Quartile 4	188	Male	24	12.8	62	33.0	2	1.1	88	46.8
		Female	28	14.9	65	34.6	7	3.7	100	53.2
		Subtotal	52	27.7	127	67.6	9	4.8	188	100.0
		Male Mean Length	576		577		625			
		SE	7		5		30			
		Range	490–635		475–650		595–655			
		n	24		62		2			
		Female Mean Length	585		575		590			
		SE	4		3		7			
		Range	560–635		510–620		565–610			
		n	28		65		7			
Total	416	Male	48	11.5	142	34.1	6	1.4	196	47.1
		Female	58	13.9	150	36.1	12	2.9	220	52.9
		Total	106	25.5	292	70.2	18	4.3	416	100.0
		Male Mean Length	573		574		592			
		SE	5		3		16			
		Range	490–635		475–650		545–655			
		n	48		142		6			
		Female Mean Length	583		576		577			
		SE	3		2		7			
		Range	530–635		510–620		535–610			
		n	58		150		12			

Appendix D6.–Yukon River Mountain Village test fishery coho salmon 5 7/8 in mesh drift gillnet, age and sex composition, and mean length (mm), 2011.

Sample Dates	Sample Size		Brood Year (Age)							
			2008		2007		2006		Total	
			(1.1)		(2.1)		(3.1)			
			N	%	N	%	N	%	N	%
7/30–8/3, 5, 7–13, 15–16, 18–19, 22 Total	49	Male	9	18.4	16	32.7	0	0.0	25	51.0
		Female	9	18.4	15	30.6	0	0.0	24	49.0
		Total	18	36.7	31	63.3	0	0.0	49	100.0
		Male Mean Length	571		564		–			
		SE	15		6		–			
		Range	500–615		520–600		–			
		n	9		16		–			
		Female Mean Length	568		570		–			
		SE	5		7		–			
		Range	550–590		520–600		–			
		n	9		15		–			